APPENDIX A

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 80-1691

STEVEN SHOLLY and DONALD E. HOSSLER,
PETITIONERS

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION *et al.*, and UNITED STATES OF AMERICA,
RESPONDENTS

METROPOLITAN EDISON COMPANY *et al.*,

INTERVENORS

No. 80-1783

PEOPLE AGAINST NUCLEAR ENERGY,
PETITIONER

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION; JOHN AHEARNE, VICTOR GILINSKY, RICHARD T. KENNEDY, JOSEPH M. HENDRIE, and PETER A. BRADFORD, in their individual capacities; and THE UNITED STATES OF AMERICA, RESPONDENTS

METROPOLITAN EDISON COMPANY, JERSEY POWER & LIGHT COMPANY, and PENNSYLVANIA ELECTRIC COMPANY, INTERVENORS

No. 80-1784

In Re:
PEOPLE AGAINST NUCLEAR ENERGY, PETITIONER

ON SUGGESTION FOR REHEARING EN BANC

FILED 4 MARCH 1981

Before: MCGOWAN, *Chief Judge*, WRIGHT, TAMM, ROBINSON, MACKINNON, ROBB, WILKEY, WALD, MIKVA, EDWARDS and GINSBURG, *Circuit Judges*.

ORDER

The suggestion for rehearing *en banc* of the Public Utilities has been circulated to the full court and a majority of the court has not voted in favor thereof. On consideration of the foregoing, it is

ORDERED, by the Court, *en banc*, that the suggestion of the Public Utilities is denied.

Per Curiam

Circuit Judges Tamm, MacKinnon, Robb and Wilkey would grant rehearing *en banc*. Their statement is attached.

STATEMENT ON DENIAL OF REHEARING EN BANC

TAMM, MACKINNON, ROBB and WILKEY, *Circuit Judges*: We would grant a rehearing *en banc* in *Sholly, et al.* v. *United States Nuclear Regulatory Commission, et al.*, No. 80–1691 (D.C. Cir. 19 Nov. 1980) to review the startling proposition found within that opinion: that even when the Nuclear Regulatory Commission (NRC) has expressly found that a proposed amendment to an existing nuclear power plant operating license poses "*no significant hazards*" to human health or safety, the Nuclear Regulatory Commission is nevertheless *required* to provide a pre-amendment hearing to anyone who has expressed "continued interest in—and opposition to" its actions on related matters. Slip op. at 19 n.25.[1]

The panel's action raises an issue of "exceptional importance." Fed. R. App. P. 35(a). Under the rubric of statutory interpretation, the panel has made a policy decision of major consequence. The panel has read into section 189(a) of the Atomic Energy Act of 1954, 42 U.S.C. § 2239(a) (1976), as amended, the requirement that even notwithstanding a finding of "no significant hazards consideration" in a proposed license amendment, the NRC must nonetheless hold a *prior hearing* on the proposed amendment upon request of any interested person. By then drastically loosening the standard for what constitutes a "request" for a hearing, the panel has thrust upon the NRC the burden of holding full-fledged hearings before even the most trivial amendments to NRC operating licenses may be adopted.

We believe that the panel's inflexible blanket rule violates the Supreme Court's unanimous mandate in *Vermont Yankee* rejecting judicial imposition of administrative procedures upon an agency in excess of the statutory minima prescribed by Congress. *Vermont Yankee Nuclear Power Corp.* v. *NRDC*, 435 U.S. 519, 543 (1978). Furthermore, by

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[1] We would only have this court reconsider pages 12–21 of the panel opinion, where this proposition is set forth.

reversing long-standing NRC policy, the panel's decision forces a major reallocation of Commission resources, which appears likely both to overwhelm the agency's hearing machinery and to divert staff attention from safety issues of greater significance. Finally, the panel decision threatens to result in the closing—for as much as nine months—of numerous power plants currently awaiting license amendments pending completion of hearings, when *post hoc* hearings might in fact be more than adequate to ventilate any health and safety issues posed by most amendments.

The license amendment in this case—a temporary modification of the Three Mile Island nuclear power plant's operating license to permit post-accident release of radioactive gas from the reactor building at rates exceeding existing specifications—was atypical among NRC operating license amendments.[2] Only a tiny fraction of all license

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[2]The peculiar circumstances under which the *Sholly* appeal arose made this case particularly inappropriate for judicial articulation of sweeping procedural rules. In the aftermath of the widely publicized Three Mile Island incident, the NRC had suspended the licensee's authority to operate the stricken plant, requiring that the facility be maintained in a shutdown condition. Slip op. at 4. Before the accident, the plant's operating license had expressly authorized periodic release of specified amounts of radioactive gas into the atmosphere as part of the plant's normal and necessary operations. *Id.* at 6 n.7. Because the incident had caused "dangerous concentrations of radioactive gas [to] collect[ ] within [the power plant's] reactor containment building, inhibiting cleanup and maintenance work," *id.* at 4, the NRC proceeded to prepare an overall study of the environmental impacts likely to result from decontamination and disposal of wastes resulting from the incident. In the meantime the Commission modified the facility's operating licence to prohibit *any* venting or purging of the reactor building atmosphere pending explicit future approval. *Id.* at 5.

Almost a year after the incident, after extensive environmental assessment and after concluding that release of gas from the

amendments involve emergency matters so subject to factual dispute as the hazards attendant to venting radioactive gas into the atmosphere. The Commission acts on an average of more than 400 license amendments per year. NRC's Motion to Stay Issuance of Mandate at 3. For the seventy-one power reactors currently licensed for operation, some 800 license amendment actions are presently before the Commission. The vast bulk of these concern matters such as: changing or adding to the myriad Technical Specifications embedded in a given power plant's 400-page operating license, detailing a plant's operating conditions, modifying

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plant would not constitute a significant environmental impact, the Commission tentatively recommended that the reactor building atmosphere be decontaminated by venting the gas through the building's hydrogen control system. *Id.* at 5–6. On 12 June 1980 the NRC modified the plant's operating license to permit the licensee to vent the gas from the reactor building at a rate faster than allowed by existing specifications, based on its explicit finding that offsite radioactive *dose* limits would not be breached if the gas were vented at a rate in excess of existing *release rate* limits. *Id.* at 6 & n.8.

The Commission further expressly found that modification of the operating license would involve "no significant hazards consideration." *Id.* at 6. The petitioners who later challenged the NRC's decision not to provide a hearing on that modification did not file a request for a hearing until the day before venting was to begin. *Id.* at 7. When venting finally began, release proceeded at first at a rate within the levels previously specified for normally operating reactors. *Id.* During this period petitioners moved to suspend the venting but then subsequently withdrew their request on 8 July. On the same day as the request was withdrawn, the licensee began to vent gas at the faster rate permitted by the 12 June license amendment. Venting was completed in three days, producing offsite doses well under the expected limits; shortly thereafter the 12 June venting orders expired. The Commission has asserted, and petitioners have not controverted, that any future purging of the Three Mile Island reactor atmosphere will be at worst minor and sporadic. *Id.* at 8.

surveillance requirements, administrative controls, design features or the like. Affidavit of Roger S. Boyd, Former Director of the Division of Project Management, NRC Office of Nuclear Reactor Regulation at 3, *attached to* Intervenor-Respondents' Petition for Rehearing and Suggestion for Rehearing En Banc [Boyd Affidavit].

The NRC staff completes review of some fifty of these amendments per month; typically, it refuses to make a finding of "no significant hazards consideration" in a proposed amendment unless (1) the proposed change raises no significant new safety information of a type not previously considered in prior safety reviews, (2) the change raises no significant increase in the probability or consequences of an accident, or (3) the change offers no significant decrease in the plant's safety margin. *Id.* at 3–4. Over the past four calendar years, the NRC has published notice in the *Federal Register* of *more than 1500 amendments* to operating plant licenses which the NRC staff found to have "no significant hazards considerations." *Id.* at 4. The NRC has recognized that delay in issuance of license amendments would require plant shutdown if agency review is not expeditiously completed.[3] Moreover, plants already shutdown for refueling or other reasons cannot restart until such review is completed. Thus NRC, practice and regulations have long called for approval of license amendments without hearing upon a finding of no significant hazards, accompanied by post-approval publication of notice in the *Federal Register*.[4]

We believe that the agency's past practice complied fully with statutory mandates. Whether or not a finding of "no

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[3]The former Director of the NRC's Division of Project Management estimates that there are about 50 license amendment applications now pending before the NRC which are likely to be classified as having "no significant hazards considerations" and which, if not approved within the next few months, will result in the shutdown of the reactor involved. Boyd Affidavit at 5.

[4]*Id.* at 6.

significant hazards consideration" has been made, no hearing is required under the applicable language of section 189(a) of the Atomic Energy Act, 42 U.S.C. § 2239(a) (1976), unless a hearing has first been specifically requested. The first sentence of section 189(a) only requires the NRC to grant a hearing on a license amendment proposal "*upon the request* of any person whose interest may be affected by the proceeding." (Emphasis added.) The third sentence, however, permits the NRC "*in the absence* of a request therefor by" such a person to issue an amendment without a hearing, "upon thirty days' notice and publication once in the Federal Register of its intent to do so." (Emphasis added.) Without mentioning hearings, the fourth sentence then specifies that the Commission may even dispense with such "thirty days' notice and publication . . . upon a determination by the Commission that the amendment involves no significant hazards consideration."[5]

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[5] Section 189(a) of the Atomic Energy Act of 1954, 42 U.S.C. § 2239(a) (1976), as amended in 1957, Pub. L. No. 85-256, § 7, 71 Stat. 579 (1957), and in 1962, Pub. L. No. 87-615, § 2, 76 Stat. 409 (1962), reads in pertinent part as follows:

> In any proceeding, under this chapter, for the granting, suspending, revoking, or amending of any license . . . the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding. The Commission shall hold a hearing after thirty days' notice and publication once in the Federal Register, on each application . . . for a construction permit for a facility . . . . [T]he Commission may, in the absence of a request therefor by any person whose interest may be affected, issue . . . an amendment to an operating license without a hearing, but upon thirty days' notice and publication once in the Federal Register of its intent to do so. The Commission may dispense with such thirty days' notice and publication with respect to any application for . . . an amendment to an

The *Sholly* panel read this language to conclude that the agency has for years in fact been operating in violation of section 189(a). The panel first argued that this court had previously held in *Brooks* v. *Atomic Energy Comm'n*, 476 F.2d 924, 926 (D.C. Cir. 1973) "that the fourth sentence [of section 189(a)] only dispenses with requirements of notice and publication," *not* the requirement of a hearing. Slip op. at 14. Furthermore, the panel then independently read the statutory language to require the same conclusion, finding that because the fourth sentence of section 189(a) refers only to thirty days' notice and publication, it "plainly demonstrates that Congress did . . . intend to disentangle the two requirements of notice and hearing." Slip op. at 15. The legislative history of the 1962 amendments to section 189(a), the panel concluded, demonstrates that "Congress perceived the changes to section 189(a) as permitting the NRC to dispense only with notice and publication—not a hearing—upon a finding of "no significant hazards consideration." *Id.* at 18.

We believe that the panel unjustifiably relied on this court's brief *per curiam* opinion in *Brooks* to support its central proposition. We further believe that the panel's independent interpretation of the relevant language in section 189(a) ignored logic and distorted the legislative history of that section.

In *Brooks* two utility companies petitioned the Atomic Energy Commission to modify the provisional construction permits for two nuclear power plant units in order to extend the "latest completion date" specified in the permits. Petitioners, persons living near the proposed construction site, had earlier filed a timely request for a hearing with respect to two issues: whether the provisional construction permits should be modified to protect environmental values

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operating license upon a determination by the Commission that the amendment involves no significant hazards consideration.

in accordance with NEPA and whether operating licenses for those facilities should issue. 476 F.2d at 925–26. The Commission gave petitioners notice that a hearing would be held on the second matter, "but inexplicably failed" to give notice that the proceedings would also permit discussion of the first issue: modification of the construction permits. *Id.* at 926 & n.6.

In ordering a hearing on the issue of extension of permit completion dates, the court made two points. Noting that the Commission's order summarily extending those dates had given "no indication whatsoever that the amendment involved no significant hazards consideration," the court stated "the Commission must surely make the required significant hazards determination, and note such determination in its order, if it intends to put forward such determination as the basis for its denial of a hearing." *Id.* at 926. Second, the court stated that because petitioners had made an undeniable request for a hearing on modification of permits, the Commission had erred in issuing the order without *notice* that the hearing scheduled to take place would also concern permit modification.

We believe *Brooks* to be plainly inapposite here. The *Brooks* court was addressing two questions not before the *Sholly* panel: whether the Commission could dispense with a hearing without first making a finding of no significant hazards, and whether the Commission could dispense with the notice statutorily required *in the third sentence of section 189(a)* when a clear request for a hearing has been made. The *Brooks* court plainly did not seek to lay down the broad rule which the panel here articulates: that the fourth sentence of section 189(a) requires a hearing even when the Commission has made a "no significant hazards consideration" finding. If that rule has indeed been the law of this Circuit since *Brooks*, it comes as a great surprise to us. At least one member of this court, addressing the proposition directly in a case decided after *Brooks*, stated the view that "[a]n amendment can be made without opportunity for a hearing if the AEC determines that it "involves no

significant hazards consideration.'" *Union of Concerned Scientists* v. *AEC*, 499 F.2d 1069, 1084 n.36 (D.C. Cir. 1974) (McGowan, J.), Furthermore, some thirteen NRC regulations and cases listed within the panel opinion, but summarily dismissed there, indicate that both before *and after Brooks* the NRC consistently interpreted section 189(a) to permit issuance of license amendments even without hearings upon a finding of "no significant hazards consideration." Slip op. at 20 n.26.

The panel buttresses its puzzling statutory construction with citation from a legislative history which it concedes to be "replete with ambiguities and inconsistencies." Slip op. at 18–19 n.24. We would submit that the confusion inherent within that legislative history is alone sufficient reason why it should not have been cited selectively in support of the panel's sweeping rule. While the panel holds that the NRC's "no significant hazards consideration" finding did not entitle the Commission to dispense with a hearing *prior* to the license amendment, slip op. at 20, *none* of the legislative history cited supports the notion that Congress intended to require a *prior* hearing.[6] Furthermore, although

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[6] *See, e.g.*, the remarks of Representative Holifield and Senator Pastore cited in the panel opinion at p. 19: "[A]mendment [to section 189(a)] in no way limits the right of an interested party to intervene and request a hearing *at some later stage* . . ." (Emphasis added).

Even if petitioners sought to bottom their right to a prior hearing on due process grounds, rather than on the language of section 189(a), *cf.* slip op. at 15–16 n. 20, *discussed in* note 9 *infra*, it is not clear why in most license amendment cases that right could not be accommodated "at a meaningful time and in a meaningful manner" by a *post*-amendment hearing. *Cf. Mathews* v. *Eldridge*, 424 U.S. 319, 348–49 (1976). Intervenor-Respondents have suggested that in the vast majority of license amendment cases involving no significant hazards considerations, opportunity for a hearing *after* the amendment has issued would still allow full consideration of all issues involved without

the panel rejects Judge McGowan's unambiguous statement in *Union of Concerned Scientists* as dictum, its subsequent analysis of the legislative history of the 1962 amendments to section 189(a) makes no mention of the broad and careful statutory analysis of those amendments which lay at the heart of Judge McGowan's well-reasoned opinion.[7]

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endangering plant safety or interfering with normal plant operations. *See* Intervenor-Respondents' Petition for Rehearing and Suggestion for Rehearing En Banc at 12. *See also* Boyd Affidavit at 5; note 11 *infra*.

Certainly the panel could have reached its result without disrupting the Commission's prevailing practice of dispensing with prior hearings on trivial license amendments involving no significant hazards, simply by adopting the type of balancing test previously approved by this court in *Union of Concerned Scientists:*

> [A]dministrative action taken prior to a full hearing has always been permissible when the state's interest in acting promptly to promote the general welfare, including economic well-being, *outweighs the individual's interest in having an opportunity to be heard before the state acts*, perhaps in error, in ways that may cause him significant injury.

Union of Concerned Scientists v. *AEC*, 499 F.2d 1069, 1081 (D.C. Cir. 1974) (emphasis added). This principle allows the decision whether or not to grant a prior hearing to be based on the facts of the individual case, rather than upon a pronouncement as broad as the one made here.

[7] Ironically the panel rejects Judge McGowan's statement as dictum because "[t]he court provided no support for its far-reaching statement, nor did it even make mention of the recently decided *Brooks* case," a case which we believe to be inapposite. Slip op. at 14 n.18. Yet the panel's subsequent analysis of the legislative history of the statutory language at issue ignored both the general thrust as well as the express language of Judge McGowan's opinion.

In *Union of Concerned Scientists*, Judge McGowan read the Atomic Energy Act to "erect [ ] a regulatory scheme virtually

The panel's reading of the statute and legislative history becomes even more remarkable when combined with its extraordinarily broad conception of what constitutes a request for a hearing, slip. op. at 19 n.25. Reading *Brooks* to hold "that expressions of interest may be sufficient to constitute a request for a hearing," the panel then finds that "petitioners' continued interest in—and opposition to—the actions of the NRC at TMI-2 clearly constituted a request for a hearing."[8] By finding such facts to constitute a hear-

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unique in the degree to which broad responsibility is reposed in the administrative agency, free of close prescription in its charter as to how it shall proceed in achieving the statutory objectives," 499 F.2d at 1077, *citing Siegel* v. *AEC*, 400 F.2d 778, 783 (1968). The legislative goal of the 1962 amendments, he noted, was to eliminate the kind of unnecessary procedures imposed here: "[T]he primary purpose of the 1962 amendments [was] to unburden the Commission by authorizing it to . . . *remov[e] the necessity of holding unnecessary and duplicative hearings*." 499 F.2d at 1077 (D.C. Cir. 1974) (emphasis added).

Furthermore, Judge McGowan expressed a marked lack of sympathy with petitioners' "fundamental misunderstanding of the AEC licensing process," suggesting that in cases like this one Congress did not intend to give the public an unequivocal right to participation:

> The role of the A[tomic] S[afety] L[icensing] B[oard] is not to compile a record; it is to review a record already compiled by the Staff and A[dvisory] C[ommittee on] R[eactor] S[afeguards], who have responsibility for the sufficiency of that record. . . . In the Atomic Energy Act . . . [Congress] authorized the Commission, in its discretion, to determine that certain applications present no "significant hazards considerations" and to dispense with notice and publication of impending approval, *excluding the public altogether*.

Id. at 1078 (emphasis added).

[8] Slip op. at 19 n.25. The panel finds the fact that "petitioners were among the many that submitted comments in April-May

ing request, the *per curiam* opinion has virtually read out of the statute the requirement that a hearing be requested. Yet the statutory language leaves no doubt that the NRC has no statutory duty to provide hearings on license amendments when none are requested. Furthermore, as the panel recognized, slip op. at 15 n.20, the statute expressly authorizes the NRC to dispense with thirty days' notice and publication, *even if an express request for a hearing is made*, so long as the NRC has made the requisite finding of "no significant hazards consideration."

We submit that the panel's interpretation of section 189(a), taken as a whole, renders it virtually impossible for the NRC faithfully to follow the explicit congressional directives found within that section. The panel has, in effect, eviscerated the congressional mandate found in both the third and fourth sentences of section 189(a). Since under the panel's standard almost any expression of interest constitutes a "request," the NRC will rarely be able confidently to dispense with a hearing on a licensing amendment, despite the fact that Congress authorized it to do so in sentence three. Since the panel recognizes that it is absurd to hold a hearing without first providing notice to interested persons,[9] the NRC will never be able safely to dispense

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1980" to the NRC regarding the NRC's Environmental Assessment of the plant's decontamination somehow to buttress its finding of an individual hearing request. *Id.*

[9] The panel opinion requires that even when there is an undisputed finding of no significant hazards, clearly permitting the Commission to dispense with the 30 days' notice and publication statutorily prerequisite to a hearing, that a hearing must be held nonetheless, even *without* notice or publication to anyone who has a continuing interest in the matter. While acknowledging that this result is "paradoxical," slip op. at 15–16 n.20, the panel implies that such a result might never come about because the due process clause of the Fifth Amendment or the Administrative Procedure Act may mandate that the Commission give interested persons *some form* of notice and publication prior to amending a license, *even if the statute*

with notice and publication even when a routine amendment undisputedly involves no significant hazards considerations, despite the fact that Congress authorized it to do so in sentence four.[10]

Finally, while we believe the question deserves further briefing, we are also troubled by the clear indications in the

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expressly authorizes it to dispense with thirty days' notice and publication. Id. If the panel meant to imply by this tantalizing suggestion that notice and publication were in fact constitutionally required in this case, we believe it should have made that point explicitly so that that finding could properly have been the subject of further review.

This repeated evasive tactic by some panels of this court has not gone unnoticed. *See, e.g.*, Scalia, *Vermont Yankee: The APA, the D.C. Circuit, and the Supreme Court*, 1978 SUP. CT. REV. 345, 372 (criticizing this court's tendency to render decisions which are *de facto* unreviewable):

> [T]he most important factor leading to the *de facto* unreviewability of the D.C. Circuit's positions is the failure of that Court itself to facilitate review, even when the most fundamental issues are at stake. Or to put the point more critically: The pattern of dicta, alternate holdings, and confused holdings out of which the D.C. Circuit's [hybrid rulemaking principles] . . . so clearly and authoritatively emerged had the effect, if not the purpose of assuring compliance below while avoiding accountability above.

[10] Even if the Commission makes an uncontested finding that no significant hazards will result from a license amendment, must it nevertheless hold a hearing on that amendment for anyone who has previously expressed interest in or opposition to the NRC in related matters in the past, so long as that person continues to express *some* interest? Despite the fact that the Commission is statutorily authorized to dispense with thirty days' notice and publication in such a case, is it nevertheless required, *sua sponte*, to contact anyone who has submitted a comment about a relevant rulemaking in the preceding months to see if that person would like a hearing?

opinion that the panel stretched to lay down a blanket rule for *all* cases in a case that was arguably moot[11] and whose facts were unique and, at points, ambiguous. The parties have suggested that the panel erred not only in summarily finding that a proper request for a hearing had been made, but also in finding that such a request, even if made, had not later been withdrawn.[12] At a minimum, we would have

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[11] Although we do not specifically challenge the panel's finding of mootness, slip op. at 8–12, we express some doubt that the issue which the panel chose to resolve was truly one both "capable of repetition, *yet evading review.*" *Southern Pac. Term Corp.* v. *ICC*, 219 U.S. 498, 515 (1911) (emphasis added). The Department of Justice, the Commission, and intervenors all convincingly argued that although the question decided here—whether the NRC is required to hold a hearing before issuing a license amendment based on a finding of "no significant hazards"—may well recur in the future, it is unlikely to evade review. *See* Memorandum of Respondent United States of America at 4 ("[T]here is no reason to believe that [the NRC's] actions will characteristically be irreversible."); Brief for Respondent Nuclear Regulatory Commission at 19–25. *See also* Intervenor-Respondents' Petition for Rehearing and Suggestion for Rehearing En Banc at 12:

> The vast majority of operating license amendments—and particularly those involving no significant hazards consideration—are reversible. Changes such as shortened surveillance intervals can be lengthened; revised calculational techniques can be replaced with the prior methods. . . . In this respect, the amendment facilitating krypton venting from Three Mile Island Unit 2 was truly exceptional in that once released the krypton could not be reclaimed. Even in cases where "irreversible action" is involved, a subsequent hearing would still have the salutory [sic] effect of assuring thorough NRC consideration.

[12] *See* Memorandum of Respondent United States of America at 22:

> At the ASLB hearing, . . . petitioner Sholly had an opportunity to press his claim that §189(a) entitled

the parties brief and argue these questions as a prerequisi to determining whether the panel's broad ruling was in fact necessary to its disposition of the case.

A number of judges and commentators have leveled criticism at this court for its continuing unwillingness to be guided by the Supreme Court's unequivocal directive in *Vermont Yankee Nuclear Power Corp.* v. *NRDC*, 435 U.S. 519 (1978) (reversing *NRDC* v. *NRC*, 547 F.2d 633 (D.C. Cir. 1976), and remanding to this court for a determination of adequacy of the record).[13]

In *Vermont Yankee*, the Supreme Court spoke to this court with one voice, making it "absolutely clear" that

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> him to such a hearing; he could have attempted to convince the ASLB that the license amendment was invalid because the Commission had not granted a prior hearing. Instead of attempting to do so, he "formally withdrew" his motion to stop the release of radioactive krypton pending the outcome of the hearing. . . . *He refused to go forward with the hearing.* In this way the Commission was deprived of an early opportunity to correct its error. . . . This is a further reason for believing that the petition is moot. . . .

(Emphasis added.)

[13] *See, e.g.*, Scalia, *Vermont Yankee: The APA, the D.C. Circuit, and The Supreme Court*, 1978 SUP. CT. REV. 345, 345 (*Vermont Yankee* brought "into question th willingness of the D.C. Circuit to be guided by the Supreme Court"); Friendly, *Book Review*, 8 HOFSTRA L. REV. 471, 481 (1980) (D.C. Circuit judges may have become "overly enthusiastic" in imposing procedural requirements on administrative agencies); Byse, Vermont Yankee *and the Evolution Of Administrative Procedure: A Somewhat Different View*, 91 HARV. L. REV. 1823, 1832 (1978) (continued judicial imposition of procedural requirements on agencies reflects "insensitivity to the concerns of the agency in deploying its resources to conduct its business, undue self-confidence in the assumption that the court's procedural prescription is 'best,' and lack of trust in the political process . . .").

"[a]bsent constitutional constraints or extremely compelling circumstances the 'administrative agencies should be free to fashion their own rules of procedure and to pursue methods of inquiry capable of permitting them to discharge their multitudinous duties.'" 435 U.S. at 543 (citations omitted). The unanimous Court went on specifically to caution us against the type of procedural-imposition which has occurred here:

> [I]f courts continually review agency proceedings to determine whether the agency employed procedures which were, in the court's opinion, perfectly tailored to reach what the court perceives to be the "best" or "correct" result, judicial review would be totally unpredictable. And the agencies, operating under this vague injunction to employ the "best" procedures and facing the threat of reversal if they did not, would undoubtedly adopt full adjudicatory procedures in every instance.

Id. at 546.

It is hard to imagine a case where the Supreme Court's concluding statement in *Vermont Yankee* could be more apposite than here:

> Nuclear energy may some day be a cheap, safe source of power or it may not. But Congress has made a choice to at least try nuclear energy, establishing a reasonable review process in which courts are to play only a limited role. The fundamental policy questions appropriately resolved in Congress and in the state legislatures are *not* subject to reexamination in the federal courts under the guise of judicial review of agency action. Time may prove wrong the decision to develop nuclear energy, but it is Congress or the States within their appropriate agencies which must eventually make that judgment. In the meantime courts should perform their appointed function.

435 U.S. at 557–58 (emphasis in original).

We submit the issues raised by *Sholly* demand reconsideration.

APPENDIX B

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

September Term, 1980

No. 80-1691

STEVEN SHOLLY, DONALD E. HOSSLER, *Petitioners,*

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION, *et al.,*
and the UNITED STATES OF AMERICA, *Respondents*

METROPOLITAN EDISON COMPANY, ET AL., *Intervenors.*

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and consolidated cases

BEFORE: Wright, Mikva and Edwards; Circuit Judges

Order

(Filed March 4, 1981)

On consideration of the petitions for rehearing of the Nuclear Regulatory Commission and the Public Utilities, it is

ORDERED by the Court that the aforesaid petitions are denied.

Per Curiam

FOR THE COURT:

GEORGE A. FISHER, *Clerk*

BY: ROBERT A. BONNER
Robert A. Bonner
Chief Deputy Clerk

APPENDIX C

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 80-1691

STEVEN SHOLLY and DONALD E. HOSSLER, PETITIONERS

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION *et al.* and UNITED STATES OF AMERICA, RESPONDENTS

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v.

UNITED STATES NUCLEAR REGULATORY COMMISSION; JOHN AHEARNE, VICTOR GILINSKY, RICHARD T. KENNEDY, JOSEPH M. HENDRIE, and PETER A. BRADFORD, in Their Individual Capacities; and THE UNITED STATES OF AMERICA, RESPONDENTS

METROPOLITAN EDISON COMPANY, JERSEY POWER & LIGHT COMPANY, and PENNSYLVANIA ELECTRIC COMPANY, INTERVENORS

No. 80-1784

IN RE: PEOPLE AGAINST NUCLEAR ENERGY, PETITIONER

Petitions for Review of Orders of the
United States Nuclear Regulatory Commission
and for Writ of Mandamus

Argued September 8, 1980

Decided November 19, 1980

Robert Hager, with whom *Daniel P. Sheehan* was on the brief, for petitioners.

Stephen Eilperin, Solicitor, United States Nuclear Regulatory Commission, with whom *E. Leo Slaggie*, Attorney, United States Nuclear Regulatory Commission, was on the brief, for respondent United States Nuclear Regulatory Commission.

David A. Strauss, Attorney, Department of Justice, with whom *James A. Moorman*, Assistant Attorney General, and *Peter R. Steenland, Jr.*, Attorney, Department of Justice, were on the brief, for respondent United States of America. *Stanford Sagalkin* and *Lois Schiffer*, Attorneys, Department of Justice, also entered appearances for respondent United States of America.

Mark Augenblick, with whom *George F. Trowbridge* and *Matias F. Travieso-Diaz* were on the brief, for intervenors. *Robert E. Zahler* also entered an appearance for intervenors.

Before WRIGHT, *Chief Judge*, and MIKVA and EDWARDS, *Circuit Judges*.

Opinion *per curiam*.

PER CURIAM: In this case petitioners seek review of two orders by the Nuclear Regulatory Commission (NRC) permitting the Metropolitan Edison Company to release radioactive gas into the atmosphere from the Three Mile Island nuclear plant.[1] The claim here is that the orders issued by the NRC were made effective without affording petitioners their statutory rights to notice and a hearing.[2]

On June 26, 1980, this court denied petitioners' request for emergency injunctive relief to block the release of the radioactive gas. Now that the radioactive gas from the nuclear plant has been fully vented into the atmosphere, the petitioners seek only declaratory relief from this court.

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[1] Metropolitan Edison Co., Pennsylvania Electric Co., and Jersey Central Power and Light Co. jointly hold the operating license to the Three Mile Island nuclear plant. In this opinion they are called collectively either "the licensee" or "Metropolitan Edison."

[2] The petitioners primarily rely on § 189(a) of the Atomic Energy Act of 1954, 42 U.S.C. § 2239(a) (1976), as amended in 1957, Pub. L. No. 85-256, § 7, 71 Stat. 579 (1957), and in 1962, Pub. L. No. 87-615, § 2, 76 Stat. 409 (1962). Section 189(a) reads in pertinent part as follows:

> In any proceeding, under this chapter, for the granting, suspending, revoking, or amending of any license . . . the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding. The Commission shall hold a hearing after thirty days' notice and publication once in the Federal Register, on each application . . . for a construction permit for a facility . . . . [T]he Commission may, in the absence of a request therefor by any person whose interest may be affected, issue . . . an amendment to an operating license without a hearing, but upon thirty days' notice and publication once in the Federal Register of its intent to do so. The Commission may dispense with such thirty days' notice and publication with respect to any application for . . . an amendment to an operating license upon a determination by the Commission that the amendment involves no significant hazards consideration.

I. BACKGROUND

This case arises in the aftermath of a widely publicized accident that occurred on March 28, 1979 at "Unit 2" of the Three Mile Island nuclear plant. As a result of the accident, dangerous concentrations of radioactive gas collected in the reactor containment building, inhibiting cleanup and maintenance work.

Three months after the accident, the NRC issued an "Order for Modification of License," 44 Fed. Reg. 45,271 (1979), suspending Metropolitan Edison's authority to operate Unit 2 of the Three Mile Island plant (TMI-2), and requiring it to "maintain the facility in a shutdown condition." *Id.*[3] The NRC order indicated that, in about thirty days, the Commission would issue a "Safety Evaluation" addressing "the imposition of new and/or revised Technical Specifications setting forth appropriate license conditions." *Id.*

In fact, the NRC issued no such evaluation. Instead, on November 21, 1979, the NRC issued a "Statement of Policy and Notice of Intent to Prepare a Programmatic Environmental Impact Statement," 44 Fed. Reg. 67,738 (1979), which was to be an "overall study of the decontamination and disposal process." *Id.* The NRC Statement of Policy directed the agency's staff

> to include in the programmatic environmental impact statement on the decontamination and disposal of TMI-2 wastes an overall description of the planned activities and a schedule for their completion along with a discussion of alternatives considered and the rationale for choices made.

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[3] Much of the factual basis for the NRC's actions is contained in its report, the "Final Environmental Assessment for Decontamination of the Three Mile Island Unit 2 Reactor Building Atmosphere" (May 1980), which is reprinted in the Intervenor-Respondents' Appendix (App.) 18.

Id.

On February 11, 1980, the NRC issued another order, 45 Fed. Reg. 11,282 (1980), which stated that

> the facility's operating license should be modified so as to: . . . (3) Prohibit venting or purging or other treatment of the reactor building atmosphere . . . until each of these activities has been approved by the NRC, consistent with the Commission's Statement of Policy and Notice of Intent to Prepare a Programmatic Environmental Impact Statement.

Id.[4]

Six weeks later the NRC published a notice of the "Availability of Environmental Assessment for Decontamination of the Three Mile Island Unit 2 Reactor Building Atmosphere," 45 Fed. Reg. 20,265 (1980). The notice stated that the Assessment "considers five alternative methods for decontaminating the reactor building atmosphere and recommends that the building atmosphere be decontaminated by purging to the environment through the building's hydrogen control system." *Id.*[5] The NRC staff concluded in the Assessment that venting the gas into the atmosphere would "not constitute a significant

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[4]The February 11, 1980 order specified that any interested person or the licensee could request a hearing before March 21, 1980 on whether the proposed changes in the technical specifications would be sufficient "to protect health and safety or to minimize danger to life and property" or "whether the provisions of this Order would significantly affect the quality of the human environment." *Id.* at 11,283. The order also provided, however, that a request for a hearing on part (3) of the order would not stay the effectiveness of the order. *Id.*

[5]The NRC desired to remove the radioactive gas from the reactor building so that workers could begin to clean the building, maintain the equipment, and prepare to remove the damaged fuel from the reactor core. Removing the radioactive gas from the reactor containment building was only the first step in an extensive cleanup.

environmental impact and, accordingly, the staff does not propose to prepare a separate Environmental Impact Statement on this action." *Id.* at 20,265–66. Public comments on the Assessment originally were due by April 11, 1980, but the period was extended to May 16, 1980. 45 Fed. Reg. 30,760 (1980).

In May of 1980, the NRC issued the "Final Environmental Assessment for Decontamination of the Three Mile Island Unit 2 Reactor Building Atmosphere." On June 12, 1980, the NRC issued without a hearing two final orders, entitled "Order for Temporary Modification of License" and "Memorandum and Order," App. 119 and 125, respectively. The first order modified the operating license[6] to permit the licensee to release the radioactive gas from the reactor building at a faster rate than the existing specifications allowed.[7] The first order also expressly stated that, because the NRC had found that the modification of the operating license involved "no significant hazards consideration," requests for a hearing would not stay the implementation of the order. App. 121–23.[8] The second order

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[6] As part of its argument, the NRC contends that the second order, permitting purging, was not a license amendment. However, the NRC admits that the first order amended the TMI-2 operating license.

[7] Before the accident of March 28, 1979, the TMI-2 operating license authorized periodic release of specified amounts of radioactive gas into the atmosphere as a normal and necessary part of plant operations.

[8] Part of the basis for the Commission's determination of "no significant hazards consideration" was its conclusion that, although existing *release* rate limits would be exceeded, off-site dose limits would not be breached. Since the NRC's concern was the effect of the venting on human health, the Commission felt that the more direct measure—off-site dose limits—would provide a satisfactory standard to determine the appropriate limits on the venting of the radioactive gas.

authorized release of radioactive gas from the reactor building.[9] Venting was to begin on June 22.[10]

On June 16, petitioners wrote a letter to the NRC requesting that it reconsider its finding of "no significant hazards consideration" and its decision to make the June 12 orders effective immediately. The NRC did not respond.

On June 23, petitioners filed a petition in this court for review of the two June 12 orders.[11] Three days later this court denied the petitioners' requests for emergency injunctive and declaratory relief. The next day, one day before the venting began, the petitioners filed a request for a hearing with the NRC on the two June 12 orders. The hearing request was referred to an Atomic Safety and Licensing Board. On July 3, the petitioners moved the Board to suspend the venting; however, this request was subsequently withdrawn, on July 8, shortly before the venting was completed.

Metropolitan Edison began to vent the reactor building on June 28, 1980, at a rate that was within the original license specifications for a normally operating reactor. On July 8, the licensee began to vent the radioactive gas at a faster rate, pursuant to the specifications set in the June

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[9] The NRC made no finding that this order involved "no significant hazards consideration." *See* Brief for Respondent Nuclear Regulatory Commission at 30, 35.

[10] By making the orders effective immediately, the Commission failed to give any notice in the Federal Register of the license amendment. The Commission contends that so long as it makes a finding of "no significant hazards consideration," the governing statute does not impose such a notice requirement. *See* note 2 *supra* for statutory notice and hearing requirements.

[11] On July 8, 1980, a petition for review (No. 80-1783) and an accompanying petition for writ of mandamus (No. 80-17[illegible]) were filed in the Third Circuit. On the NRC's motion, those cases were transferred to this court and consolidated for review with No. 80-1691, the case originally filed in this court.

12 license amendment. The venting was completed on July 11. As the NRC had anticipated, the off-site doses from the venting were below the limits set in the June 12 radiation license amendment. In its draft Programmatic Environmental Report Statement, issued August 14, 1980, the Commission stated that it did not anticipate a recurrence of the purging of the reactor building atmosphere, but that some minor releases of gas might be necessary for data gathering purposes. *See* Brief for Respondent Nuclear Regulatory Commission at 6 n.4 & 20 n.11.

II. MOOTNESS

Because the licensee has completed the venting of the reactor containment building, and because both of the June 12 orders have expired, the Commission and the licensee claim that petitioners' claims for injunctive and declaratory relief are moot.[12] However, because we find that these cases are "capable of repetition, yet evading review,"[13] we hold that the petitioners' claims are justiciable in this court.[14]

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[12]Metropolitan Edison seems to argue that since petitioners' claims for injunctive relief are moot (i.e., the reactor building atmosphere has been purged), the case should be dismissed. This argument, however, misstates the nature of the relief sought by petitioners. They have sought *both* injunctive and declaratory relief in this action. Although petitioners cannot now obtain injunctive relief to prevent the purging, they continue to pursue their claim for a declaratory judgment that the NRC must grant them statutorily mandated notice and a hearing whenever it amends a license. *See, e.g., Super Tire Engineering Co. v. McCorkle*, 416 U.S. 115 (1974) (the Court found that even though the strike had been settled, mooting injunctive relief, the petitioner alleged sufficient facts in support of declaratory relief so that the case should not be dismissed as moot).

[13]*See Southern Pac. Terminal Co. v. Interstate Commerce Comm'n*, 219 U.S. 498, 515 (1911).

[14]We note that the United States has taken the position that the petitioners' claims are "capable of repetition"—since the

The mootness doctrine is primarily based on article III of the United States Constitution, which limits federal court jurisdiction to "cases" or "controversies." Courts have interpreted the constitutional provision to limit their jurisdiction to "a present, live controversy of the kind that must exist if we are to avoid advisory opinions on abstract propositions of law." *Hall v. Beals*, 396 U.S. 45, 48 (1969). The case or controversy requirement "preserves the separation of powers" and "'limit[s] the business of federal courts to questions presented in an adversary context and in a form historically viewed as capable of resolution through the judicial process.'" *Tennessee Gas Pipeline Co. v. Federal Power Comm'n*, 606 F.2d 1373, 1379 (D.C. Cir. 1979) (quoting *Flast v. Cohen*, 392 U.S. 83, 95 (1968)).

Commission has stated that it will continue to deny requested hearings when it finds no significant hazards considerations are involved—but that future claims will not evade review—since "there is no reason to believe that [NRC] actions will characteristically be irreversible." Memorandum of Respondent United States at 4. Consequently, the United States also argues that the petitions should be dismissed as moot.

We reject the Government's position for two reasons. First, as we explain in the text of the opinion, many NRC license amendments are irreversible. The facts in the present case illustrate how making an amendment effective immediately can preclude complete judicial review. Second, we believe that it is unreasonable for the Government to take the position that, in order to seek judicial review of a license amendment, a petitioner must race to the courthouse before the NRC takes an irreversible action. Even if a petitioner could file the petition before the NRC acted, a court more often than not will decline to grant emergency relief. Indeed, such a request for emergency relief was denied in this case. Consequently, because a petitioner will not receive complete judicial review of his claim, even though it might be meritorious, we find that these claims evade review.

Cases arising from agency action, no less than cases involving only private parties, are subject to the mootness doctrine. Yet, as this court has recently noted, "the concept of mootness is placed under some strain in the context of administrative orders whose formal legal effect is typically shortlived." *Tennessee Gas Pipeline Co. v. Federal Power Comm'n*, 606 F.2d at 1379–80. The strain is relieved somewhat by an exception first articulated in *Southern Pac. Terminal Co. v. Interstate Commerce Comm'n*, 219 U.S. 498 (1911), where the Supreme Court held that technically moot cases are justiciable if they involve "short term orders, capable of repetition, yet evading review." *Id.* at 515.

A case is considered justiciable if "the litigant show[s] the existence of an immediate and definite governmental action or policy that has adversely affected and continues to affect a present interest." *Super Tire Engineering Co. v. McCorkle*, 416 U.S. 115, 125–26 (1974). As this case demonstrates, administrative orders, like labor disputes, often "do not last long enough for complete judicial review of the cor oversies they engender . . . . The judiciary must not close the door to the resolution of the important questions these concrete disputes present." *Id.* at 126–27. Yet, in order to invoke the *Southern Pacific* exception, the petitioner must not only show that "the challenged action was in its duration too short to be fully litigated prior to its cessation or expiration," he must also show that "there was a reasonable expectation that the same complaining party would be subjected to the same action again." *Weinstein v. Bradford*, 423 U.S. 147, 149 (1975).

The issue in the present case is not simply whether the NRC will again purge the reactor building atmosphere without first giving notice and holding a hearing. At stake is whether the NRC will continue its policy of making immediately effective license amendments without holding a hearing, even though petitioners request one, whenever the NRC finds that the amendment involves "no significant hazards consideration."

Under this view of the issues in this case, the conditions for avoiding dismissal on grounds of mootness, set forth in *Weinstein*, are met. The Commission has candidly conceded that

> at some point in the TMI-2 cleanup, perhaps on more than one occasion, the Commission will amend the utility's license in respects so minor that the Commission will think itself justified in making the amendment immediately effective based upon a no significant hazards consideration finding. Certainly, that kind of finding has been utilized in the past.

Brief for Respondent Nuclear Regulatory Commission at 23.[15] The Commission plainly intends to adhere to its policy of denying a hearing on a license amendment, under certain circumstances, even though interested parties specifically request a hearing. The chances of recurrence are more than speculative; because the NRC policy will be carried out during the TMI-2 cleanup, there is a "reasonable expectation that the same complaining part[ies]" will

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[15] This admission entirely undercuts Metropolitan Edison's argument that there is no evidence that the actions complained of will be repeated. In each of the cases cited in Metropolitan Edison's brief, the challenged governmental activity had ceased with no indication that it would be continued at a later time. *See, e.g., Murphy v. Benson*, 270 F.2d 419 (2d Cir. 1959), *cert. denied*, 362 U.S. 929 (1960). In the present case, by contrast, the NRC has clearly stated its intention to continue with its allegedly unlawful conduct—making certain license amendments effective immediately without holding a requested hearing or giving notice. We think it obvious that the NRC will also continue to rely on the second method employed in this case for avoiding the notice and hearing requirements of § 189(a)—describing an order as something other than a license amendment. *See* note 6 *supra*. The Commission's continued belief in its authority to follow this policy makes petitioners' challenge to the policy "capable of repetition." *See Nader v. Volpe*, 475 F.2d 916 (D.C. Cir. 1973).

be denied their alleged statutory rights to hearing and notice.

As the present case demonstrates, challenges to the NRC's policy of denying a hearing on license amendments may well escape review. The difficulty here is that the orders are often shortlived and the NRC actions, like venting, may be irreversible. The difficulty is compounded when the NRC elects, as in this case, to make its orders effective immediately. These considerations indicate that future challenges to the NRC policy may easily "evade review."

This court has stated that "[t]he situations [involving appellate consideration of recurrent controversies] are necessarily variant, and the variables complex. . . . [T]he court's decision to maintain the appeal, in the interest of sound judicial administration, is dependent on a prediction of a recurrence or continuation of what is perceived to be essentially the same legal dispute." *Alton & Southern Railway Co. v. International Ass'n of Machinists & Aerospace Workers*, 463 F.2d 872, 879 (D.C. Cir. 1972). "While an 'effective remedy' for the immediate dispute is not obligatory, there must be at least a capacity for a declaration of legal right concerning a future projection of the actual dispute that precipitated the litigation." *Id.* at 879–80. In the present case, that capacity exists, and we hold that this case is not moot.

III. The Order for Temporary Modification of License

The NRC issued without a hearing the "Order for Temporary Modification of License" (OTML) of June 12, 1980, which substituted off-site dosage limits for release limits in the TMI-2 operating license. The petitioners contend that the NRC's failure to provide a hearing violated section 189(a) of the Atomic Energy Act of 1954. The first sentence of that section provides in relevant part:

> In any proceeding under this chapter, for the granting, suspending, revoking, or amending of any license or construction permit . . . the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.

The NRC and Metropolitan Edison do not dispute that the OTML constituted a license amendment subject to the terms of section 189(a). They do maintain, however, that under the fourth sentence of the section the Commission could dispense with a hearing. The fourth (and last) sentence of section 189(a) reads:

> The Commission may dispense with such thirty days' notice and publication with respect to any application for an amendment to a construction permit or an amendment to an operating license upon a determination by the Commission that the amendment involves no significant hazards consideration.

The NRC and the licensee argue that the NRC properly made a finding of "no significant hazards consideration" with respect to the OTML, and that consequently a hearing was not required. Although the last sentence of section 189(a) only explicitly "dispense[s] with . . . thirty days' notice and publication" upon a determination of "no significant hazards consideration," the NRC and the licensee contend that such a determination also permits the Commission to dispense with a hearing because notice and a hearing are inextricable.[16]

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[16] The petitioners, challenging the correctness of the "no significant hazards consideration" determination, also contend that the NRC was required under the third sentence of § 189(a) to provide 30 days' notice and publication in the Federal Register of the Commission's intent to issue the license amendment without a hearing. The third sentence provides that

> the Commission may, *in the absence of a request therefor* by any person whose interest may be affected, issue an

We are convinced that such a finding did not permit the NRC to dispense with a hearing that is otherwise required by section 189(a).[17] This is not the first case in this circuit in which it has been argued that a finding of "no significant hazards consideration" permits the NRC to issue a license amendment without a hearing. In *Brooks v. Atomic Energy Comm'n*, 476 F.2d 924, 926 (D.C. Cir. 1973) (*per curiam*), this court soundly rejected the contention that the fourth sentence in section 189(a) "indicate[d] Congressional intent to dispense with hearings in construction permit amendment proceedings . . . when the Commission determines that the amendment involves 'no significant hazards consideration.'" Instead this court, after an examination of the legislative history of section 189(a), held that the fourth sentence only dispenses with requirements of notice and publication. Because this circuit has previously rejected the very construction of section 189(a) offered by the NRC and the licensee,[18] the doctrine of

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operating license or an amendment to a construction permit or an amendment to an operating license without a hearing, but upon thirty days' notice and publication once in the Federal Register of its intent to do so.

(Emphasis added.) Since, however, we hold that the petitioners requested a hearing, *see* note 25 *infra*, and that the NRC was required to hold a hearing, we need not reach the question whether the Commission was required to provide 30 days' notice of its intent to issue the license amendment without a hearing.

[17] It is noteworthy that respondent United States concedes—indeed argues—that the NRC's failure to provide a hearing violated § 189(a) of the Atomic Energy Act. *See* Memorandum of Respondent United States at 4–21.

[18] It is true, of course, that 15 months after the *Brooks* decision this court stated in dictum in a footnote that "[a]n amendment can be made without opportunity for a hearing if the AEC determines that it 'involves no significant hazards consideration.'" *Union of Concerned Scientists v. Atomic Energy Comm'n*, 499 F.2d 1069, 1084 n.36 (D.C. Cir. 1974). The court provided support for its far-reaching statement, nor did it

stare decisis compels us to hold that the NRC improperly failed to provide a hearing in the instant case.

Moreover, even if this court were not bound by *stare decisis*, we would still adopt the *Brooks* interpretation of the last sentence of section 189(a). The plain language of section 189(a) dispels any notion that by a finding of "no significant hazards consideration" the NRC may dispense with the hearing requirement. The fourth sentence makes no mention of the hearing requirement's being lessened, but makes reference only to the requirements of notice and publication. Despite the plain, unambiguous language contained in the last sentence, the NRC and Metropolitan Edison suggest that the requirements of hearing and notice are so intertwined that the reference to notice in the fourth sentence must also comprehend a hearing. While it is true that requirements of notice and hearing are interrelated, it is clear that Congress was not merging them in section 189(a). That is demonstrated by the third sentence of the section where Congress made explicit reference to the hearing requirement.[19] That sentence plainly demonstrates that Congress did indeed intend to disentangle the two requirements of notice and hearing,[20] and

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even make mention of the recently decided *Brooks* case, which had squarely *held* to the contrary on the basis of the legislative history of § 189(a). We accordingly decline to place any reliance on the dictum in *Union of Concerned Scientists*.

[19] For the text of the third sentence, *see* note 16 *supra*.

[20] We are cognizant of the fact that the plain meaning of the third and fourth sentences of § 189(a), when read together, produces in theory a somewhat paradoxical result. Under the fourth sentence the NRC may issue a license amendment without providing 30 days' notice and publication in the Federal Register of its intent to do so, while under the third sentence the NRC need not provide a hearing when one has not been requested. As the NRC and the licensee note, it is difficult to imagine how a hearing can be requested when the NRC issues a license amendment without notice. This "paradoxical result" did

"to lessen the mandatory hearing requirement only when there was no request for a hearing." *Brooks v. Atomic Energy Comm'n*, 476 F.2d at 927.

A review of the legislative history of the 1962 amendments to section 189(a)—by which the last two sentences of the section were added—also firmly persuades us that the *Brooks* court properly construed the last sentence of section 189(a). That history demonstrates that the 1962 amendments to section 189(a) had their origin in congressional concern over a hearing requirement in *uncontested* cases—that is, when a hearing had not been requested.[21] Representative of that concern was the statement by

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not occur, however, in the instant case. Although petitioners did not formally request a hearing prior to issuance of the OTML, their prior expressions of interest constituted in effect a request for a hearing. *See* note 25 *infra*. It is also unclear whether the "paradoxical result" will ever in fact occur. As the NRC conceded at oral argument, there may be some type of notice requirement—although perhaps not 30 days' notice and publication in the Federal Register—implicit in the opportunity to seek judicial review of determinations of "no significant hazards consideration." Moreover, our decision today does not reach the question whether some notice of the NRC's intention to amend a license is required under the due process clause of the Fourteenth Amendment or the Administrative Procedure Act notwithstandin finding of "no significant hazards consideration."

[21] Indeed, counsel for Metropolitan Edison testified in 1961 before the Joint Committee on Atomic Energy and argued for retention of a hearing requirement when a hearing has been requested:

> I hope that this committee will seriously consider repeal of the mandatory hearing requirements of section 189(a), leaving intact, of course, the provisions for a hearing at the request of any person whose interest may be affected by the licensing proceedings.

Radiation Safety and Regulation: Hearings Before the Joint Comm. on Atomic Energy, 87th Cong., 1st Sess. 266 (1961) (testimony of George F. Trowbridge).

Raoul Berger, serving as an American Bar Association spokesperson, that

> 14 out of 15 of [the Atomic Energy Commission's] cases have been uncontested. And the central problem appears to be whether trial-type proceedings should be employed under sections 7 and 8 of the Administrative Procedures [*sic*] Act *in uncontested cases* . . . .

AEC Regulatory Problems: Hearings on H.R. 12336 and S. 3491 Before the Subcomm. on Legislation of the Joint Comm. on Atomic Energy, 87th Cong., 2d Sess. 64 (1962) (statement of Raoul Berger) (emphasis added).[22] *Accord*, *e.g.*, *id.* at 32 (statement of Herzel H.E. Plaine, Chairman, Special Comm. on Atomic Energy Law, ABA). Thus an interpretation of section 189(a) that would permit the NRC to issue a *contested* license amendment without a hearing would enlarge section 189(a) beyond the scope originally intended.[23]

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[22] In response the staff counsel to the Joint Committee noted:

> Mr. Berger, I think you are absolutely correct that the difficulty, the backgrou· hat led to the Joint Committee study and the bills, was t..e concern over the handling by AEC of uncontested cases. . . .

AEC Regulatory Problems: Hearings on H.R. 12336 and S. 3491 Before the Subcomm. on Legislation of the Joint Comm. on Atomic Energy, 87th Cong., 2d Sess. 70 (1962) (remarks of David Toll).

[23] In support of its interpretation of § 189(a) the NRC quotes from a letter written in 1961 by former AEC Commissioner L.K. Olson to the Joint Committee on Atomic Energy, *reprinted in* Staff of the Joint Comm. on Atomic Energy, 87th Cong., 1st Sess., Improving the Regulatory Process, Vol. II, at 578–87 (Comm. Print 1961). The quoted portions of the letter suggest, in ambiguous terms, that the Commissioner was of the view that the AEC should be able to dispense with hearings on license amendments upon a finding that "no substantial new safety questions" are presented. *See* Reply Brief for Respondent Nuclear Regulatory Commission at 9. Even if Com-

The 1962 Report of the Joint Committee on Atomic Energy also suggests that Congress perceived the changes to section 189(a) as permitting the NRC to dispense only with notice and publication—not a hearing—upon a finding of "no significant hazards consideration":

> *In the absence of a request for a hearing*, issuance of an amendment to a construction permit, or issuance of an operating license, or an amendment to an operating license, would be possible without formal proceedings, but on the public record. . . .
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> . . . .
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> Finally, it is expected that *the authority given AEC to dispense with notice and publication* would be exercised with great care and only in those instances where the application presented no significant hazards consideration.

H.R. Rep. No. 1966, 87th Cong., 2d Sess. 8 (1962); S. Rep. No. 1677, 87th Cong., 2d Sess. 8 (1962) (emphasis added). And in a committee hearing one year prior, the Joint Committee on Atomic Energy had noted:

> When no substantial safety question is involved in . . . the amendment . . . the public interest would be protected by . . . publication of an apt notice in the Federal Register [24] and the giving of *an opportunity to any interested party to intervene*. . . .

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missioner Olson intended his comments to apply to *contested* matters, it is clear from the rest of the legislative history that *Congress* did not share the Commissioner's view.

[24] It is not entirely clear what the Committee meant by the phrase "publication of an apt notice in the Federal Register." Presumably it only refers to publication of the amendment *after the Commission has issued it*. This is not inconsistent with the fourth sentence of § 189(a), adopted in 1962, which dispenses with 30 days' notice and publication in the Federal Register of the Commission's *intent to issue* a license amendment without a hearing.

This ambiguity in the quoted language is not unique in the context of § 189(a). The text and legislative history of the sec-

Staff of the Joint Comm. on Atomic Energy, 87th Cong., 1st Sess., Improving the Regulatory Process, Vol. II, at 49–50 (Comm. Print 1961) (emphasis added). The language of the reports, consonant with the plain meaning of section 189(a), thus indicates that the section only permits the NRC to issue a license amendment without a hearing when there has been no hearing request.[25]

Statements by Representative Holifield, Chairman of the Joint Committee on Atomic Energy, and Senator Pastore, Vice-Chairman, on the floors of their respective houses further reinforce the language in the reports. Both individuals explicitly stated that the "amendment [to section 189(a)] in no way limits the right of an interested party to intervene and request a hearing at some later stage, nor does it affect the right of the Commission to hold a hearing on its own motion." 108 Cong. Rec. 16,548 (1962) (remarks of Rep. Holifield); *see id.* at 15,746 (remarks of Sen. Pastore). The interpretation that the NRC

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tion are replete with ambiguities and inconsistencies. *Cf.* note 20 *supra*. But there is no ambiguity in the legislative history or the text of § 189(a) with respect to the question before this court—whether a finding of "no significant hazards consideration" permits the NRC to dispense with a hearing.

[25] Whether petitioners did in fact request a hearing was not argued by the parties. While respondent United States suggests in a footnote that "[i]t is not wholly clear that petitioners did make such a request," Memorandum of Respondent United States at 6 n.2, we are convinced that the petitioners requested a hearing. In *Brooks v. Atomic Energy Comm'n*, 476 F.2d 924, 926 (D.C. Cir. 1973) (*per curiam*), this court held that expressions of interest may be sufficient to constitute a request for a hearing. In the instant case petitioners' continued interest in—and opposition to—the actions of the NRC at TMI-2 clearly constituted a request for a hearing. Indeed, the petitioners were among the many that submitted comments in April-May 1980 to the NRC regarding the Commission's Environmental Assessment for Decontamination of the Three Mile Island Unit 2 Reactor Building Atmosphere. *See* text at notes 5–6 *supra*.

and the public utilities press upon us,[26] however, would "limit[ ] the right of an interested party to intervene and request a hearing."

In sum, we are confident that *Brooks* was properly decided and that it dictates the construction that must be attached to the last sentence of section 189(a). Because the NRC's finding of "no significant hazards consideration" did not entitle the Commission to dispense with a requested hearing prior to issuance of the OTML, we hold that its

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[26] As part of their argument the NRC and the public utilities contend that the NRC, and the Atomic Energy Commission prior to the creation of the NRC, consistently interpreted the section as permitting license amendments to be issued without a hearing upon a finding of "no significant hazards consideration." *See* 10 C.F.R. § 2.105(a)(3) (1980); *id.* § 50.58(b); *id.* § 50.59(c) (1963); 45 Fed. Reg. 42,908 (1980); 45 Fed. Reg. 20,491–92 (1980); 43 Fed. Reg. 13,928 (1978); 41 Fed. Reg. 10,482–83 (1976); 40 Fed. Reg. 18,231 (1975); 39 Fed. Reg. 10,554 (1974); 39 Fed. Reg. 1,875–76 (1974); 27 Fed. Reg. 12,184 (1962); *Consumers Power Co.*, 7 A.E.C. 297 (1974); *General Electric Co.*, 1 A.E.C. 541 (1960). Even if the history of regulations and administrative practice by the AEC and the NRC were unambiguous—which we do not think it is—deference to the agencies' interpretations would be inappropriate in this case. As we have indicated, the statute and legislative history are in our view unambiguous: a finding of "no significant hazards consideration" does not permit the NRC to dispense with a hearing. As the Supreme Court has noted, "[A]dministrative practice does not avail to overcome a statute so plain in its commands as to leave nothing for construction." *Norwegian Nitrogen Products Co. v. United States*, 288 U.S. 294, 315 (1933).

It is also worth noting that because of today's decision the NRC will not be able to put into effect a regulation proposed earlier this year that would explicitly permit the NRC to dispense with hearings on license amendments upon a finding of "no significant hazards consideration." *See* 45 Fed. Reg. 20,491–92 (1980). Such a regulation would be clearly inconsistent with the congressional mandate in § 189(a).

failure to provide a hearing violated section 189(a) of the Atomic Energy Act.

IV. THE NRC'S MEMORANDUM AND ORDER

The second order issued by the NRC on June 12, 1980, entitled "Memorandum and Order" (Venting Order), authorized Metropolitan Edison to vent the atmosphere of the reactor containment building. Respondents argue that section 189(a) did not require a hearing with respect to the Venting Order because the order was not a license amendment. We reject respondents' description of the order and find that section 189(a) was indeed applicable and, as a consequence, that petitioners were entitled to a hearing on the Venting Order.

Section 189(a), quoted in pertinent part in note 2 *supra*, requires that a hearing be given upon request "[i]n any proceeding under this chapter, for the granting, suspending, revoking, or amending of any license or construction permit." 42 U.S.C. § 2239(a) (1976). Respondents maintain that because the Venting Order merely lifted a prior suspension of the licensee's authority to vent, and did not authorize release of a greater amount of radioactive gas than was permitted by the original technical specifications of the operating license, it was not a license amendment. However, on the facts here, this characterization of the Venting Order appears to be nothing more than an after-the-fact rationalization, which finds no support in the record of this case.

The NRC's July 20, 1979 "Order for Modification of License" suspended Metropolitan Edison's authority to operate TMI-2 and directed the licensee to "maintain the facility in a shutdown condition in accordance with the approved operating and contingency procedures." 44 Fed. Reg. 45,271 (1979). In a second order, dated February 11, 1980, the NRC recognized that TMI-2's operating license did not permit venting as part of a cleanup operation because the license specifications pertained only to normal operation of the facility:

> [I]n the present post-accident status of the facility, the license itself does not include explicit provisions or Technical Specifications for assuring the continued maintenance of the plant in a safe, stable condition or for coping with foreseeable off-normal conditions. Moreover, certain portions of the facility's operating license relate to or govern power operation of the facility, the authority for which was suspended by the Order of July 20, 1979. *These provisions are now simply inapplicable to the facility in its present post-accident condition.*

45 Fed. Reg. 11,282 (1980) (emphasis added). The NRC concluded that "the facility's operating license should be *modified* so as to: . . . [p]rohibit venting or purging . . . until . . . approved by the NRC." *Id.* (emphasis added).

There is no indication that this order was intended or perceived as a mere suspension of the licensee's existing authority to vent. In February 1980, it appeared that adequate venting of the reactor building might not be possible under the existing license authority. Consequently, the NRC acted to modify—and thus amend—the TMI-2 license in order to regulate the plant in an "off-normal" condition and to facilitate whatever venting scheme might be determined to be necessary. By its very terms, the February 11, 1980 order was a license amendment intended to reflect TMI-2's post-accident condition. Given that the original operating license was inapplicable, the NRC could not simply rely on its terms as authority for the venting. Authority for venting—in this case the June 12 Venting Order—therefore had to come in the form of a license amendment.

The specific language of the June 12 Venting Order further corroborates our interpretation of that order as a license amendment. In the Venting Order, the NRC noted that TMI-2 was being operated according to the provisions of the February 11, 1980 order, *see* Venting Order at 10, *reprinted in* App. 134, and the Venting Order did nothing to change that. TMI-2's operating license was not simply

"unsuspended" by the Venting Order. Instead, in the words of the NRC, "[i]n the present order we give the approval contemplated by [the February 11] restriction insofar as necessary for the licensee to conduct a purging of the TMI-2 containment." *Id.* at 11, *reprinted in* App. 135. Nowhere does the Venting Order support respondents' characterization of it as a reinstatement of some preexisting authority. Rather, the Venting Order appears as an amendment to the February 11 amendment to TMI-2's operating license. Because the June 12 Venting Order modified the February 11 order, and granted the licensee authority to do something that it otherwise could not have done under the existing license authority, the Venting Order was a license amendment within the scope of section 189(a).

Our reading of the Venting Order is also supported by Congress' intent in enacting section 189(a). By requiring a hearing upon request whenever a license is "grant[ed], suspend[ed], revok[ed], or amend[ed]," Congress apparently contemplated that interested parties would be able to intervene before any significant change in the operation of a nuclear facility. Whatever the Venting Order is called, it certainly was such a change.

As we held in Section III of this opinion, the NRC is required under section 189(a) to hold a hearing on a license amendment whenever interested parties request one.[27] Petitioners did so in this case, *see* note 25 *supra*, and the NRC therefore acted unlawfully in refusing to hold a hearing on the Venting Order.[28]

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[27] We note that the NRC and the public utilities briefly argued that a full adjudicatory hearing was not required here. *See* Brief for Respondent Nuclear Regulatory Commission at 32–34; Brief for Intervenor-Respondents at 44–45. Because this question was not fully briefed and argued by the parties, we express no opinion on the precise nature of the hearing required by § 189(a).

[28] Respondent United States argued that petitioners requested a hearing, as provided for in the OTML, and then failed

V. Conclusion

Because the NRC's actions in this case are "capable of repetition yet, evading review," the issues presented by petitioners are not moot. We hold that under section 189(a) the NRC is required to hold a hearing on license amendments whenever interested parties request one. Finally, we hold that the June 12 Venting Order, which authorized the NRC to release radioactive gas from the disabled nuclear reactor, was a license amendment subject to the hearing requirements of section 189(a). Because the petitioners requested a hearing on the two June 12 license amendments, they were entitled to a hearing under section 189(a). The NRC's refusal to hold a hearing violated the petitioners' statutory rights.

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to exhaust their administrative remedies by withdrawing their motion. The intended scope of that hearing and the facts surrounding the withdrawal are somewhat muddled by the record. What is clear, however, is that the offer of a hearing was made only in the OTML and not in the Venting Order. Presumably, then, petitioners would have been able to challenge only the license amendment substituting off-site dosage limits for release limits and not the actual decision to vent. Moreover, any hearing was to revolve around the issues whether the license amendment was in the public interest and whether it should be sustained. *See* App. 123. It appears from this description that petitioners would not have been permitted to raise their arguments regarding the NRC's interpretation of § 189(a), which formed the basis of this suit. Finally, the Commission specifically provided that a request for a hearing would not stay the effectiveness of the order. *See id.* But § 189(a) required a hearing upon request on the Venting Order before it went into effect; a hearing after the venting had been completed would not have satisfied the statute's requirement. For all these reasons, the remedy that petitioners allegedly failed to exhaust was an inadequate one and therefore need not have been pursued. *See McNeese v. Board of Educ.*, 373 U.S. 668, 674–76 (1963); *Union Pac. R.R. Co. v. Board of County Comm'rs*, 247 U.S. 282 (1918).

APPENDIX D

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Docket No. 50-320

In the Matter of METROPOLITAN EDISON COMPANY, *et al.*
(Three Mile Island Nuclear Station, Unit 2)

ORDER FOR TEMPORARY MODIFICATION OF LICENSE

(June 12, 1980)

I.

Metropolitan Edison Company, Jersey Central Power and Light Company and Pennsylvania Electric Company (the licensee) are the holders of Facility Operating License No. DPR-73, which had authorized operation of the Three Mile Island Nuclear Station, Unit 2 at power levels up to 2772 megawatts thermal. By Commission order dated July 20, 1979, the licensee's authority to operate the facility, except as provided therein, was suspended. The facility, which is located in Londonderry Township, Dauphin County, Pennsylvania, is a pressurized water reactor used for the commercial generation of electricity.

II.

On March 28, 1979, an accident at the Three Mile Island Nuclear Station Unit 2 resulted in substantial damage to the reactor core and to certain reactor systems and components. The facility is not capable of normal operation and is in a shutdown condition with fuel in the core. The facility is being maintained in a stable, long-term cooling mode in accordance with the provisions of the Commission order, dated February 11, 1980. That order did not affect the limits on release of gaseous radioactive effluents set forth in Appendix B, section

2.1.2 of the technical specifications attached as a condition of the license. However, the krypton-85 (Kr-85) released into the reactor building during the accident must be removed from the building so that workers can begin the tasks necessary to clean the building, maintain instruments and equipment, and eventually remove the damaged fuel from the reactor core. Those tasks must be performed whether or not the plant ever again produces electricity. Radiation from the krypton gas, although thinly dispersed through the reactor building atmosphere, nevertheless poses a threat to workers who would have to work in the building for prolonged periods. The preferred method for removing the Kr-85 is a kind of flushing or purging process by which the gases would be exhausted from the building and fresh air pulled in.

Section 2.1.2 of the Appendix B technical specifications contains both instantaneous and quarterly limits for releases of noble gases, including Kr-85, to the atmosphere. These limits were developed with normal facility operations in mind and were phrased as limits on releases rather than limits on off-site doses (the effects of the releases) so that compliance with the limits would not necessarily depend on off-site dose measurements. Instead, on-site measurements of the amounts of materials released would be used for determining compliance. These limits could serve to unnecessarily delay the time required to complete the purging process. The revised limits described below would remove this difficulty. They are expressed as limits on off-site doses rather than as limits on releases. An extensive environmental monitoring network is set up in the Three Mile Island area that is capable of producing prompt and frequent off-site dose measurements. This network, along with on-site measurements of releases and meterology measurements, will be used to assure compliance with the new limits. Under the revised limits the dose to the maximally exposed individual off-site will be within the limits of the Commission's regulations that would apply if the reac-

tor were operating normally.* Thus the new limits will not be inimical to public health and safety. In addition, since the principal effect is merely to switch from release limits to dose limits, with the same concept of limiting health effects to a specified low amount in mind, the change involves no significant hazards consideration.

The nature and effects of the purging process are described more fully in the Commission's Memorandum and Order in this matter, dated June 12, 1980, and NUREG-0662, "Final Environmental Assessment for Decontamination of the Three Mile Island Unit 2 Reactor Building Atmosphere", May 1980.

III.

The Commission has found for the reasons stated above that a temporary and immediate revision to section 2.1.2 of the Appendix B technical specifications would not be inimical to the public health and safety and involves no significant hazards consideration. Accordingly, pursuant to sections 161b and 189a of the Atomic Energy Act of 1954, as amended, and 10 CFR sections 2.204 and 50.54(h) of the Commission's regulations, section 2.1.2 of the Appendix B technical

* The most restrictive regulation is 10 CFR Part 50, Appendix I. Appendix I sets forth gaseous release annual off-site dose design objectives of 5 millirems to the total body and 15 millirems to the skin. The purging will be limited so that the maximally exposed individual could not receive a dose from purging that exceeds this objective. Gaseous releases from TMI-2 unrelated to purging are expected to be insignificant, so that the annual dose from gaseous effluents should not exceed the annual Appendix I design objective by any significant amount, if at all. Purging will likely result in doses that will exceed the reporting levels of IV.A of Appendix I, but this is of no concern in view of the assurance that the purging will be within the annual design objective.

specifications is amended, effective immediately, by adding at the end thereof the following:

> Only for the period of the purge of the TMI-2 reactor building atmosphere, Section 2.1.2h is deleted and Sections 2.1.2c are superseded by the following:
>
> > Do not exceed for the maximally exposed individual* in any one of the 16 (22 1/2°) sectors centered on the TMI-2 reactor building any of the following:
> >
> > (a) 15 mrem skin dose
> >
> > (b) 5 mrem total body dose
> >
> > (c) 20% of the limits in (a) and (b) shall not be exceeded over any one hour period.
>
> In addition, pursuant to Section 6.8.2 of the proposed Appendix A Technical Specifications, NUREG-0432, made binding on the licensees by the February 11, 1980 order of the Director of the Office of Nuclear Reactor Regulation (NRR), any purging shall be conducted in accordance with procedures approved by the Director, NRR.

IV.

The licensee or any person whose interest may be affected may, within thirty days, file a request for a hearing with respect to this Order in accordance with the provisions of 10 CFR 2.714. In the event a hearing is held, the issues shall be: (1) whether the temporary technical specification modification imposed herewith (described in Part III above) is in the interest of the public health and safety; and (2) whether this

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* Maximally Exposed Individual

(1) One hypothetical individual within *each* of 16 sectors at off-site location with maximum anticipated dose.

(2) No allowance for occupancy time — assume individual present continuously.

(3) No hypothetical individual shall receive more than dose design objectives of (a) and (b) above.

Order should be sustained. A request for a hearing will not stay the effectiveness of this Order. In the event a hearing is held, it shall be consolidated with any hearing held in regard to Commission orders in this docket dated February 11 and May 12, 1980.

A request for a hearing by the licensee or another person must be filed with the Office of the Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Section. A copy of the request for a hearing should also be sent to the Executive Legal Director, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 and to Mr. George F. Trowbridge, of Shaw, Pittman, Potts, and Trowbridge, 1800 M Street, N.W., Washington, D.C. 20036, attorney for the licensee. Any questions regarding the contents of this Order should be directed to the Chief Hearing Counsel, Office of the Executive Legal Director, U.S. Neclear Regulatory Commission, Washington, D.C. 20555.

For further details with respect to this action, see (1) Operating License DPR-73, as amended, (2) NUREG-0662, "Final Environmental Assessment for Decontamination of the Three Mile Island Unit 2 Reactor Building Atmosphere," dated May 1980, (3) Commission Memorandum and Order, dated June 12, 1980. All of the above documents are available for inspection at the Commission's Public Document Room 1717 H Street, N.W., Washington, D.C. and at the Commission's Local Public Document Room at the State Library of Pennsylvania, Government Publications Section, Education Building, Commonwealth and Walnut Streets, Harrisburg, Pennsylvania 17126, and of the York College of Pennsylvania, Country Club Road, York, Pennsylvania.

FOR THE NUCLEAR
REGULATORY COMMISSION

/s/ SAMUEL J. CHILK
Samuel J. Chilk
Secretary of the Commission

Dated at Washington, D.C.
on June 12, 1980.

APPENDIX E

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Docket No. 50-320

In the Matter of
METROPOLITAN EDISON COMPANY, *et al.*
(Three Mile Island Nuclear Station, Unit 2)

Commissioners:

John F. Ahearne, Chairman
Victor Gilinsky
Richard T. Kennedy
Joseph M. Hendrie
Peter A. Bradford

Memorandum And Order

(June 12, 1980)

The Commission has before it a staff recommendation that the licensee, Metropolitan Edison Company, et al., be authorized to commence a controlled purging of the TMI-2 reactor building atmosphere in order to remove the remaining radioactive Krypton-85.[1] To meet the requirements of the National Environmental Policy Act, the staff has submitted in support of this recommendation a "Final Environmental Assessment for Decontamination of the Three Mile Island

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[1] Most of the radionuclides originally released into the containment atmosphere have decayed to insignificant levels. The dominant remaining radionuclide is the gas, Krypton-85 (Kr-85), which has a 10.7-year half-life. The Environmental Assessment states that approximately 57,000 curies of Kr-85 are mixed in the containment atmosphere, as determined by periodic sampling of Kr-85 concentrations.

Unit 2 Reactor Building Atmosphere," NUREG-0662, May 1980. The draft version of this assessment and two subsequent addenda were issued for public comment, and by the close of the comment period on May 16, 1980 approximately 800 responses had been received. These are summarized in Section 9 of the final assessment and major comments are included in Volume II of NUREG-0662. The Commission received further information regarding the proposed purging at oral briefings by the staff on June 5, 1980 and June 10, 1980.

In a Statement of Policy dated November 21, 1979 the Commission announced its intent to prepare a programmatic environmental impact statement on decontamination and disposition of radioactive waste resulting from the March 28, 1979 accident at Three Mile Island, Unit 2. The policy statement noted that if the best interest of public health and safety required prompt decontamination action prior to completion of the programmatic statement, such action would not be precluded. The Commission stated among other things, however, that no action to purge the containment of radioactive gases would be taken without a prior environmental review and opportunity for public comment. Before we can approve the staff's recommendation for controlled purging of the TMI-2 containment, we must thus decide whether there is sufficient need for prompt decontamination of the containment atmosphere to justify going ahead prior to completion of the programmatic impact statement. We must also decide whether the decontamination method recommeded by the staff can be carried out consistent with the Commission's statutory mandate to ensure adequate protection of public health and safety and whether the environmental review has met the requirements of the National Environmental Policy Act.

The immediate goal of the proposal to purge the reactor building atmosphere is to remove radioactive particulates and gases released into the containment by the accident. There are several methods discussed in the Environmental Assessment by which the radioactive krypton can be removed. The

method recommended by the staff involves controlled release to the outside atmosphere of the gases in the containment through the existing plant ventilation system, the hydrogen control subsystem, and the reactor building purge system. The release rates would be controlled so as to take place only during acceptable meteorological conditions, which would be continuously monitored, such that the dose limits established by 10 CFR Part 20, the design objectives of 10 CFR Part 50, Appendix I, and the provisions of 40 CFR Part 190.10, to the extent they may be applicable, will not be exceeded by the controlled purging.[2] In addition to monitoring of releases by the NRC, radiological monitoring during the proposed controlled purging would be conducted by the U.S. Environmental Protection Agency (EPA), the Commonwealth of Pennsylvania, the U.S. Department of Energy and Metropolitan Edison Company.

The Environmental Assessment contains ample evidence to show that risk to physical health from the proposed purge or from any of the alternative decontamination methods considered by the staff would be negligible. See Table 1.1, NUREG-0662. The assessment also addresses the effects on the psychological well-being of persons living in the vicinity of TMI. The staff concluded that psychological stress resulting from the proposed venting of Kr-85 will be less than from any of the alternatives, including the alternative of taking no action. Testimony at the June 5, 1980 oral briefing by expert

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[2] The most restrictive regulation is 10 CFR Part 50, Appendix I. Appendix I sets forth gaseous release annual off-site dose design objectives of 5 millirems to the total body and 15 millirems to the skin. The purging will be limited so that the maximally exposed individual could not receive a dose from purging that exceeds this objective. Gaseous releases from TMI-2 unrelated to purging are expected to be insignificant, so that the annual dose from gaseous effluents should not exceed the annual Appendix I design objective by any significant amount, if at all. Purging will likely result in doses that will exceed the reporting levels of IV.A of Appendix I, but this is of no concern in view of the assurance that the purging will be within the annual design objective.

consultants on the question of psychological stress supported this conclusion and indicated that purging the containment should have the net effect of reducing the stress which otherwise would occur if positive steps are not taken promptly to proceed with decontamination and reduce uncertainty about the present and future condition of TMI-2.

Removing Kr-85 from the containment atmosphere would yield a number of important and immediate benefits. Radiation from Kr-85 at the concentration levels found inside the containment significantly limits worker access and precludes extensive operations needed to gather information, inspect and maintain equipment, and proceed toward the eventual removal of the highly radioactive damaged nuclear fuel from the reactor core. Decontaminating the atmosphere would relieve workers performing necessary maintenance and cleanup activities from hazards of working in awkward protective clothing and risk from penetrating gamma radiation associated with the decay of Kr-85.[3] Moreover, there is no serious question that removal of the Kr-85 from the containment atmosphere is a necessary step toward core defueling. Until the fuel is removed, TMI-2 will continue to present a potential risk to public health and safety. Thus, decontaminating the containment atmosphere has an immediate and independent utility which justifies proceeding at this time,[4] provided that the proposed method is acceptable in health and environmental grounds.

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[3] Only .4% of the Krypton-85 decays in a way that emits gamma rays. At the concentrations in the reactor building, this would be significant to workers. After mixing with the atmosphere, it does not threaten the public health and safety.

[4] The President's Council on Environmental Quality was consulted on the staff's proposal to vent Kr-85. In a letter dated May 19, 1980, and relying on the staff's technical analysis, the Council advised "that as a matter of procedure, staff's proposal does not violate 40 CFR Section 1506.1 (1979) (limitations on actions during NEPA process) of the Council's regulations implementing the National Environmental Policy Act."

Because of the importance to the public of having a clear understanding that purging the TMI-2 containment presents a minimal risk to physical health, we review here the basis for concluding that the physical health impacts of venting Kr-85 under proper controls will be negligible. This conclusion was supported by the U.S. Environmental Protection Agency, the U.S. Department of Health and Human Services, the National Council on Radiation Protection and Measurements, the Pennsylvania Department of Environmental Resources, and the Union of Concerned Scientists. Governor Thornburgh of Pennsylvania has indicated in a letter to Chairman Ahearne, dated May 16, 1980, that he adopts the consensus that the dose rates associated with controlled purging are insignificant. Krypton-85 has no significant food pathway involvement and in 99.6 percent of its radioactive decays emits only low energy beta particles which primarily affect the skin, one of the tissues least susceptible to radiogenic concerns. The Environmental Assessment estimates that to the maximally exposed individual the risk of skin cancer "would be equivalent to spending 30 minutes in the sun. The average individual in the population would have an added risk of skin cancer equal to about a half-second of exposure to the sun's rays." NUREG-0662, p. 7-7. The total lifetime-individual cancer risk to the maximally exposed individual would be about one in sixteen million, compared to a normal lifetime expectancy of one chance in five from all types of cancer. NUREG-0662, p. 7-2.

Of course, most persons would receive a dose much smaller than the estimated maximum. The Environmental Assessment estimates that the collective offsite dose to the population within 50 miles of TMI-2 will be 0.76 and 63 person-rem for total-body and skin doses, respectively.[5] NUREG-0662, Table 1.1. Based on these figures and on a cancer mortality risk esitmate of 135 deaths per million

[5] At the oral briefing the staff reported that estimated total-body doses to the U.S. and world populations were about 15 person-rem and 60 person-rem respectively.

person-rem,[6] the Environmental Assessment finds that "[t]he cancer mortality risk among the general population with in 50 miles resulting from the purge option would be about 0.0001." In other words, the chance that the proposed purge would cause a cancer death among the general public living within 50 miles of TMI is about one in ten thousand. Although the impacts described above apply specifically to a slow purge as originally recommended by the staff, the Environmental Assessment notes that they also apply approximately to a fast purge alternative conducted under meteorological conditions favorable for atmospheric dispersion. The staff's current recommendation calls for use of a fast purge rate if weather conditions permit. The Commission agrees with the technical staff that the physical health impact of this recommended action may be termed insignificant.[7]

Alternative methods which could reduce offsite radiation exposure still further were considered in the Environmental Assessment, including several suggestions offered by commenters on the draft assessment. These included variations of the purging method whereby the Kr-85 would be injected into the atmosphere at a higher level, either by various means of elevating the release point higher than the existing 160-foot stack or by heating the gases prior to discharge to increase its buoyancy. The staff also considered methods whereby the krypton could be captured and stored indefinitely or until the radioactivity decayed to insignificant levels (about 100 years). These methods include (1) selective absorption of krypton by a scaled-up version of a system now in operation at Oak Ridge National Laboratory, (2) absorption of large quantities

[6] This risk estimate is taken from the 1972 Report of the Committee on the Biological Effects of Ionizing Radiation, "The Effects on Populations of Exposure to Low Levels of Ionizing Radiation," National Academy of Sciences, November 1972.

[7] At the oral briefing the staff noted in answer to a question by the Commission about possible health hazards to animals that humans are generally more sensitive to radiation than other living things and that the proposed purging would clearly have no significant effect on animals.

of charcoal, (3) gas compression and storage in pressurized containers, and (4) extracting the Kr-85 by liquefying it through cryogenic processing. The alternatives considered appear to have varying degrees of practicality, but the staff found that none of them could be implemented in the near future or, for that matter in a time period much short of a year at the best.[4] The controlled purging method of decontamination recommended by the staff can be implemented immediately. Since the physical health risks of the purging method are extremely small to begin with and since decontaminating the TMI-2 containment atmosphere should not be unnecessarily delayed, for reasons we have already discussed, the Commission agrees with the staff that the possibility of reducing very small physical health risks still further does not justify significant delay and uncertainty associated with implementing an alternative process.

Although the Commission has considered the question of psychological stress, firm conclusions on this subject are not possible. We believe that the alternative chosen will in fact minimize stress, but we have no special competence in this field. It is clear that different aspects of the TMI clean-up are sources of stress to different people. However, it is difficult for us to evaluate with precision whether choosing an alternative which would delay TMI clean-up would cause more or less stress than the controlled purging of Kr-85 which a broad consensus of scientific opinion considers safe. We are confident only that the stress will be lessened 1) by our having chosen a plan which rests on a very wide consensus that physical health is not threatened by the krypton release, 2) by

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[4] In particular, the staff investigated a suggestion that the selective absorption process could be placed into operation in six months by using equipment said to be available from the National Aeronautics and Space Administration and other sources. The suitability of this equipment turned out to be questionable, and the proposed schedule for design and procurement appeared unrealistic. The staff's minimum time estimate for making a selective absorption system operational

having the krypton release occur over the shortest time consistent with the public health and safety, and 3) by a clear step toward cleaning up other potential sources of radiation at the damaged reactor. These three principles are part of this decision.

The Commission thus finds that decontamination of the TMI-2 containment atmosphere should be carried out promptly by the purging method recommended by the staff. Physical health impacts will be negligible, and a long-term reduction in the sources of psychological stress is expected.[9] Thus, there is adequate assurance that public health and safety will be protected as required by the Atomic Energy Act. We agree with the conclusion of the Environmental Assessment that the proposed action will have no significant adverse effect on the environment. Accordingly, no environmental impact statement need be prepared and a negative declaration to this effect may issue. In view of the scope and detail of the Environmental Assessment and the extensive solicitation of public comment, we believe in any case that the purposes of NEPA have been served and that preparation of a formal EIS, had one been required, could not add significantly to the level of environmental consideration and public disclosure already achieved.

TMI-2 is presently being maintained pursuant to restrictions in an order issued by the Director, Office of Nuclear Reactor Regulation on February 11, 1980 requiring the licensee, Metropolitan Edison Company, to maintain the facility in accordance with the requirements of revised technical specifications set forth as an attachment to that

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[9] The Commission has not yet determined whether psychological stress is a health concern cognizable under the Atomic Energy Act and/or an environmental impact cognizable under NEPA. We are presently considering these issues in connection with the TMI-1 restart proceeding. *In the Matter of Metropolitan Edison Company* (Three Mile Island Nuclear Station, Unit No. 1), Docket No. 50-289. In view of our finding that the proposed venting of Kr-85 is likely to have an overall beneficial effect on psychological stress, the present decision does not hinge on how the issues are finally resolved.

order. In implementation of the Commission's Policy Statement of November 21, 1979, these specifications included the restriction that "purging or other treatment of the containment atmosphere is prohibited until approved by the NRC. . . ." In the present order we give the approval contemplated by that restriction insofar as necessary for the licensee to conduct a purging of the TMI-2 containment, commencing no sooner than 10 days from the date of this order, in accordance with the proposal recommended by the NRC staff as presented to the Commission in the record for this proceeding. The licensee shall conduct this purging in accordance with procedures approved by the NRC, pursuant to Section 6.8.2 of proposed Appendix A to the Technical Specifications, NUREG-0432, as made binding on the licensee by the February 11, 1980 order of the Director, Office of Nuclear Reactor Regulation.

Commissioner Gilinsky concurs in the result. Commissioner Bradford's separate views are attached.

Information regarding the carrying out of this decision will be available at 717-782-4014 or 944-0418.

It is so ORDERED.

For the Commission

/s/ SAMUEL J. CHILK
Samuel J. Chilk
Secretary of the Commission

Dated at Washington, D.C.
this 12th day of June, 1980.

Separate Views Of Commissioner Bradford

While I agree with the result and much of the reasoning in the foregoing Order, I feel compelled to note that it is misleading in three respects:

1. It states that the Union of Concerned Scientists "supported" the conclusion that the physical health impacts of Union of Concerned Scientists did agree with that pro-

position, but it is disingenuous to imply that UCS agrees with the venting alternative chosen here. The UCS report to Governor Thornburgh is explicit in stating that the NRC's venting alternative should not be undertaken because other alternatives are available within what UCS views as a reasonable period of time and would reduce Commission's statement in a fashion designed to imply that they are in accord with the NRC's action.

2. The Order states that the staff also considered methods "whereby the krypton decayed to insignificant levels (about 100 years)." In fact, as was brought out at the June 10 meeting on this subject, there would probably be no need to store the krypton for any long period of time. There is a commercial market for Krypton-85, and if an alternative to venting were chosen, the recovered krypton could probably be sold and would not need to be stored. The real argument against recovering the krypton is that the several recovery methods take too long and cost too much when weighed against the fact that venting will have no significant radiation-related public health impacts. The language suggesting that long-term storage is a serious problem should not have appeared in the staff's environmental assessment and should not appear in this Order.

3. The staff assessment of the cryogenic processing method of recovering the Krypton-85 did not deal adequately with the availability of a completed cryogenic processing system as the Hope Creek nuclear facility. This system is already completed and is on skids and could be moved easily to the site. It could certainly complete its task in less than the 20 months assigned as the minimum for a cryogenic processing alternative. However, I am persuaded that it too would be likely to take at least a year and is therefore not a reasonable alternative to the venting plan endorsed in this order.

I am astonished to have to make these points in a separate opinion, but the Commission has declined to include them in the body of the Order.

APPENDIX F

Affidavit Of Roger S. Boyd

CITY OF WASHINGTON)
: ss
DISTRICT OF COLUMBIA)

ROGER S. BOYD, being first duly sworn, deposes and says:

1. I am Vice President of KMC, Inc., a Washington, D. C. firm that provides a broad range of consulting services to the nuclear industry and specializes in matters relating to the licensing of nuclear power plants by the Nuclear Regulatory Commission. After serving in the U. S. Air Force, I attended Ohio State University, receiving a B.S. degree in Physics in 1956. From 1956 to 1961, I was employed with the Systems Engineering Division of Battelle Memorial Institute. During that period, I worked on analyses for the nuclear ship N.S. Savannah and was a licensed operator of the Battelle Research Reactor. From 1961 to 1975, I was on the staff of the U. S. Atomic Energy Commission and from 1975 to 1979 the U. S. Nuclear Regulatory Commission ("NRC"). I worked initially in the Division of Licensing and Regulation. Subsequently, I was appointed Chief of the Research and Power Reactor Safety Branch (1964), Assistant Director for Reactor Projects (1967), Assistant Director for Boiling Water Reactors (1970), Assistant Deputy Director for Reactor Projects (1972), Deputy Director of the Division of Reactor Licensing (NRC) (1975), and Director of the Division of Project Management, Office of Nuclear Reactor Regulation (NRC) (1975). As Deputy Director, I was responsible for licensing and safety review coordination of all U. S. nuclear power reactors, including issuance of construction permits, operating licenses, and related license amendments. As Director, my responsibility included project management of the entire construction permit and operating license program.

2. The operation of U. S. nuclear power plants is governed by the operating licenses issued by the NRC. The operating license itself contains many conditions. It also contains the

Technical Specifications which govern how the plant can operate by specifying detailed requirements for operation. A change of any of these detailed operating requirements or to any other license condition requires that the operating license be amended.

3. Since about 1962, Technical Specifications have grown from a description of the plant design and a statement of simple operating limits (taking up less than 100 pages) to some 400 pages of extremely detailed requirements, including the plant's safety limits, limiting conditions for operation, surveillance requirements, administrative controls, and plant design features.

4. Because of their great detail and scope, Technical Specifications and other license provisions frequently require modification. As these provisions increased in number and specificity over the years, the number of changes requested by licensees has increased accordingly. In addition, over the past several years, the NRC has required increasing numbers of Technical Specification and license changes in carrying out its regulatory functions. As a consequence, for the seventy-one power reactors licensed for operation, I estimate that there now are about 800 license amendment actions presently pending, most of which deal with changes or additions to Technical Specifications. The number of pending applications has been around this level for several years. Typically, the NRC Staff completes its review of about fifty amendments each month.

5. As a part of its review of applications for amendments to operating licenses, the NRC Staff determines whether or not the change will involve "no significant hazards consideration". The tests which the NRC Staff uses to determine whether there is "no significant hazards consideration" are whether the proposed change involves:

a. significant new safety information of a type not considered by a previous NRC safety review of the facility;

b. a significant increase in the probability or consequences of an accident; or

c. a significant decrease in a safety margin.

Typical classes of license amendments which the NRC Staff has found to involve "no significant hazards consideration" include administrative changes, more stringent surveillance requirements, changes to conform to new or revised regulations, changes to reflect core reloadings involving no significant differences from previously reviewed cores, relief from operating restrictions with compensatory measures, and relief from previously imposed operating restrictions based upon demonstration of acceptable operation without such restrictions. Most of the amendment actions presently pending are likely to be determined to involve "no significant hazards considerations". A review of the last four calendar years found that NRC published in the Federal Register notice of more than 1,500 license amendments which the NRC Staff found to have "no significant hazards considerations." As an example, I have attached hereto a list of those notices published in 1977.

6. Many operating license amendments cannot be anticipated and are needed in a short-time span. Others with predictable lead times, such as core reloadings, are filed months in advance; however NRC review time generally consumes the entire period from completion of the fuel design to the refueling outage. In these cases, NRC review is not completed until the amendment is needed to permit continued plant operation.

7. Even though many (and perhaps the majority) of license amendments involve "no significant hazards considerations", delay in issuance can seriously affect plant operation. In many cases, such delay may require plant shutdown or keep a plant which is already shut down (such as for refueling or maintenance) from restarting. For example, a recent amendment provided one week's relief from a limiting condition for operation of a unit's salt service water system (45

Fed. Reg. 77204 (1980)); this temporary relief was needed to permit continued plant operation. Another example was an extension of the surveillance interval for hydraulic shock absorbers (42 Fed. Reg. 1320 (1977)), which if not granted would have required plant shutdown. I would estimate that there are about fifty license amendment applications now pending before the NRC which are likely to be classified as having "no significant hazards consideration" and which, if not issued within a few months, will result in shutdown of the reactor involved.

8. In the vast majority of cases, the actions authorized by a license amendment are not irreversible. This is especially the case for amendments involving "no significant hazards consideration". A surveillance interval once shortened can be lengthened, a calculation technique once revised can be changed back to the prior method. In this respect, the amendment facilitating venting of krypton from Three Mile Island Unit 2 was very atypical. In the vast majority of cases, the opportunity for a hearing after the amendment becomes effective will allow full consideration of the issues which may be involved without jeopardizing plant safety or operation.

9. Where a "no significant hazards" determination is made, NRC practice and its regulations call for the publication of a Federal Register notice of the action after approving the amendment. This notice does not stay the effectiveness of the amendment. If the current practice is changed as a result of the *Sholly* decision, I believe that there will be a substantial number of hearings requested and convened. If a hearing were required before the NRC could amend the license, the time needed to effect those changes would be dramatically increased. Given the adjudicatory procedures afforded by NRC's rules and the length of the hearing and decisionmaking process, it is unlikely that a hearing on a license amendment could be completed in less than nine months. For those situations where the license amendment is needed to permit continued operation or avoid plant shutdown, even where there are "no significant hazards considerations", a hearing would

result in the reactor being shut down for extended periods of time.

10. It is my opinion that the risk of plant shutdowns from hearings on issues involving "no significant hazards considerations" will have consequences which are adverse to overall plant safety. To avoid the risk of shutdowns, licensees may simply not request license amendments which would improve plant operations or plant safety. Even those changes which would not risk plant shutdown due to hearings might not be proposed because the licensee might perceive that there was a greater probability for becoming embroiled in adjudicatory hearings. A similar dilemma would face the NRC Staff. License amendments which it deems necessary might not be issued since NRC would be faced with the possibility of a hearing before the amendment could be made effective. If there were hearings requested on "no significant hazards" issues, NRC Staff resources would have to be shifted to these matters, with a corresponding decrease in the manpower available to consider significant safety issues. The NRC Staff does not have the resources to handle a significant increase in its hearings. While NRC could elect to impose new requirements by rulemaking, rather than by license amendments issued on a case-by-case basis, rulemaking would require significantly more time before the new requirements could be imposed and NRC would not have the flexibility to impose requirements tailored to the specific characteristics of each plant and plant design. It is my judgment that the overall effect of requiring hearings on license amendments involving "no significant hazards consideration" would be to diminish plant safety and decrease the NRC's regulatory effectiveness.

11. Finally, any increase in the shutdowns of nuclear units caused by the need for hearings on issues without "significant hazards considerations" will have major impacts to the utilities and their customers. At the present time, nuclear power generates about 12% of the nation's electricity. This value is much higher in some areas of the country, for example 34% in New England (including 60% in Maine and

55% in Connecticut) and 45% in Northern Illinois. The cost of replacing power generated by a nuclear plant is estimated at between $250,000 and $500,000 per day. Furthermore, in some areas of the country, particularly the Northeast, replacement power will come in large part from imported oil, about 30,000 barrels per day for a 1000 MWe nuclear plant. Thus, increased shutdowns can have both major economic costs and major impacts on use of imported oil.

/s/ ROGER S. BOYD
Roger S. Boyd

Subscribed and sworn to before me this 3rd day of December, 1980.

/s/ LAURA A. SIMON
Notary Public

My commission expires: [Illegible]

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
1.	Indian Point	1/6	1320
2.	Cooper	1/6	1320
3.	Calvert Cliffs	1/10	2138
4.	Oyster Creek	1/10	2138
5.	FitzPatrick	1/10	2110
6.	Indian Point	1/10	2112
7.	Peach Bottom	1/10	2143
8.	Rancho Seco	1/17	3228
9.	St. Lucie	1/24	4224
10.	Cook	1/24	4225
11.	Arkansas	1/27	5154
12.	Calvert Cliffs	1/27	5155
13.	Quad Cities	2/3	6649

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
14.	Haddam Neck	2/3	6649
15.	Palisades	2/3	6650
16.	La Crosse	2/3	6650
17.	Oyster Creek	2/3	6651
18.	Rancho Seco	2/3	6653
19.	Surry	2/3	6653
20.	Surry	2/3	6653
21.	Kewaunee	2/3	6654
22.	Kewaunee	2/3	6654
23.	Beaver Valley	2/7	7179
24.	Quad Cities	2/10	8438
25.	Zion	2/10	8438
26.	Vermont Yankee	2/10	8444
27.	Oyster Creek	2/14	9067
28.	Oyster Creek	2/14	9068
29.	Quad Cities	2/14	9069
30.	Cooper	2/14	9074
31.	Robinson	2/24	10909
32.	Dresden	2/24	10909
33.	Quad Cities	2/24	10909
34.	Arnold	2/24	10911
35.	Arnold	2/24	10911
36.	Millstone	2/24	10912
37.	Peach Bottom	2/24	10912
38.	Browns Ferry	2/24	10912
39.	Vermont Yankee	2/24	10913
40.	St. Lucie	2/28	11292
41.	Calvert Cliffs	2/28	11292
42.	Vermont Yankee	2/28	11292
43.	Arkansas	3/3	12269
44.	St. Lucie	3/3	12273

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
45.	Cook	3/3	12273
46.	Indian Point	3/10	13360
47.	Big Rock Point	3/10	13361
48.	Nine Mile Point	3/10	13362
49.	Peach Bottom	3/10	13364
50.	Browns Ferry	3/10	13364
51.	Point Beach	3/10	13365
52.	Brunswick	3/17	14939
53.	Hatch	3/21	15378
54.	Arnold	3/21	15384
55.	Millstone	3/21	15385
56.	Arkansas	3/24	15983
57.	Palisades	3/24	15983
58.	Prairie Island	3/24	15984
59.	Prairie Island	3/24	15984
60.	Haddam Neck	3/24	15986
61.	Calvert Cliffs	3/28	16493
62.	Big Rock Point	3/28	16500
63.	Three Mile Island	3/28	16501
64.	Fort Calhoun	3/28	16504
65.	Indian Point	4/7	18462
66.	Oconee	4/7	18463
67.	Oyster Creek	4/7	18463
68.	Nine Mile Point	4/7	18463
69.	Fort Calhoun	4/7	18464
70.	Vermont Yankee	4/7	18465
71.	St. Lucie	4/11	18910
72.	Kewaunee	4/11	18910
73.	Yankee-Rowe	4/11	18911
74.	Yankee-Rowe	4/11	18911
75.	Haddam Neck	4/11	18911

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
76.	Peach Bottom	4/14	19534
77.	Point Beach	4/14	19536
78.	Arkansas	4/18	20200
79.	Arkansas	4/18	20200
80.	Dresden	4/21	20685
81.	Arnold	4/21	20685
82.	Arnold	4/21	20686
83.	Three Mile Island	4/21	20686
84.	Trojan	4/21	20687
85.	Surry	4/21	20689
86.	Vermont Yankee	4/21	20689
87.	Peach Bottom	4/25	21119
88.	Arkansas	4/25	21121
89.	Pilgrim	4/25	21121
90.	Zion	4/25	21122
91.	Indian Point	4/25	21122
92.	Hatch	4/25	21122
93.	Arnold	4/25	21123
94.	Monticello	4/25	21123
95.	Turkey Point	4/28	23561
96.	Trojan	4/28	21671
97.	Ginna	4/28	21671
98.	Pilgrim	4/28	21674
99.	Brunswick	4/28	21674
100.	Turkey Point	5/9	23561
101.	Maine Yankee	5/9	29577
102.	Peach Bottom	5/9	23565
103.	Palisades	5/9	23568
104.	Calvert Cliffs	5/12	24126
105.	Prairie	5/12	21128
106.	Trojan	5/12	21128

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
107.	San Onofre	5/12	21129
108.	Point Beach	5/12	21130
109.	Brunswick	5/16	21773
110.	Dresden	5/16	24774
111.	Hatch	5/16	24774
112.	Cooper	5/16	24775
113.	Quad Cities	5/19	25784
114.	Arnold	5/19	25785
115.	Yankee	5/19	
116.	Crystal River	5/26	27071
117.	Arnold	5/26	27071
118.	Three Mile Island	5/26	27072
119.	Cooper	5/26	27072
120.	Nine Mile Point	5/26	27073
121.	Indian Point	5/31	27701
122.	Indian Point	5/31	27701
123.	Palisades	5/31	27701
124.	Millstone	5/31	27702
125.	Humbolt Bay	5/31	27702
126.	Brunswick	6/6	28943
127.	Cook	6/6	28943
128.	Oconee	6/6	28946
129.	Browns Ferry	6/6	28947
130.	Maine Yankee	6/9	29577
131.	Salem	6/9	29578
132.	Maine Yankee	6/13	30254
133.	Three Mile Island	6/13	30255
134.	Fort Calhoun	6/13	30255
135.	San Onofre	6/13	30256
136.	Davis - Besse	6/13	30256
137.	Arkansas	6/16	30697

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
138.	Arkansas	6/16	30697
139.	Fort Calhoun	6/16	30698
140.	Prairie	6/20	31201
141.	Ginna	6/20	31201
142.	Ginna	6/20	31201
143.	Browns Ferry	6/20	31202
144.	Yankee-Rowe	6/20	31203
145.	Arkansas	6/23	31846
146.	Robinson	6/27	32592
147.	Davis - Besse	6/27	32592
148.	Arnold	6/27	32593
149.	Arnold	6/27	32593
150.	Millstone	6/27	32593
151.	Peach Bottom	6/27	32594
152.	Pilgrim	6/27	32595
153.	Millstone	6/27	32595
154.	Monticello	6/27	32595
155.	Monticello	6/27	32596
156.	Fort Calhoun	6/27	32596
157.	Yankee-Rowe	6/30	33387
158.	Big Rock Point	7/5	34394
159.	Millstone	7/5	34394
160.	Nine Mile Pt.	7/5	34397
161.	Nine Mile Pt.	7/5	34397
162.	Fitzpatrick	7/7	34954
163.	Pilgrim	7/11	35709
164.	Brunswick	7/11	35709
165.	Indian Point	7/11	35710
166.	Big Rock Pt.	7/11	35710
167.	Oconee	7/11	35711
168.	St. Lucie	7/11	35711

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
169.	Peach Bottom	7/11	35712
170.	Oconee	7/14	36325
171.	Crystal River	7/14	36325
172.	Fitzpatrick	7/14	36325
173.	Salem	7/14	36328
174.	Davis-Besse	7/18	36902
175.	Oconee	7/25	37882
176.	Davis-Besse	7/25	37883
177.	Calvert Cliffs	7/28	38439
178.	Dresden	7/28	38439
179.	Haddem Neck	7/28	38439
180.	Beaver River	7/28	38440
181.	Turkey Point	7/28	38440
182.	Nine Mile Point	7/28	38441
183.	Rancho Seco	7/28	38441
184.	Peach Bottom	7/28	38442
185.	Brunswick	8/8	40059
186.	Arnold	8/8	40060
187.	Millstone	8/8	40061
188.	Surry	8/8	40064
189.	Oconee	8/11	40788
190.	Beaver Valley	8/11	40788
191.	Hatch	8/11	40789
192.	Farley	8/18	41674
193.	Farley	8/18	41674
194.	Farley	8/18	41674
195.	Crystal River	8/18	41675
196.	Fitzpatrick	8/18	41676
197.	Calvert Cliffs	8/18	41677
198.	Fitzpatrick	8/22	42261
199.	Zion	8/22	42262

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
200.	Cook	8/22	42265
201.	Fort Calhoun	8/29	42460
202.	Browns Ferry	8/29	42460
203.	Rancho Seco	9/1	44038
204.	Cook	9/1	44039
205.	Rancho Seco	9/1	44043
206.	Yankee Rowe	9/6	44617
207.	Yankee Rowe	9/6	44618
208.	Crystal River	9/8	45045
209.	Point Beach	9/12	45722
210.	Browns Ferry	9/15	46429
211.	Salem	9/15	46429
212.	Davis-Besse	9/15	46430
213.	Point Beach	9/15	46431
214.	Yankee Rowe	9/15	46432
215.	St. Lucie	9/22	47895
216.	Millstone	9/22	47895
217.	Fort Calhoun	9/22	47896
218.	Fitzpatrick	9/22	47896
219.	Oconee	9/26	48949
220.	Monticello	9/26	48949
221.	Browns Ferry	9/26	48950
222.	St. Lucie	9/29	51677
223.	Oyster Creek	9/29	51677
224.	Fitzpatrick	9/29	51678
225.	Salem	9/29	51678
226.	Arkansas	10/3	53688
227.	Cooper	10/3	53688
228.	Fort Calhoun	10/3	53688
229.	Fitzpatrick	10/3	53689
230.	Fitzpatrick	10/3	53689

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
231.	Indian Point	10/3	53690
232.	Arkansas	10/6	54474
233.	Dresden	10/6	54475
234.	Quad Cities	10/6	54476
235.	Indian Point	10/6	54476
236.	San Onofre	10/11	54891
237.	Hatch	10/11	54893
238.	Vermont Yankee	10/11	54893
239.	Turkey Point	10/17	55501
240.	Hatch	10/17	55502
241.	Monticello	10/17	55502
242.	Calvert Cliffs	10/20	55954
243.	Vermont Yankee	10/20	55954
244.	Oconee	10/20	55955
245.	Turkey Point	10/20	55955
246.	Hatch	10/20	55955
247.	Trojan	10/20	55956
248.	Pilgrim	10/25	56381
249.	Nine Mile Point	10/25	56381
250.	Prairie Island	10/25	56381
251.	Hatch	10/25	56385
252.	Rancho Seco	10/25	56387
253.	Surry	10/25	56388
254.	Brunswick	10/27	56648
255.	Brunswick	10/27	56649
256.	Dresden	10/27	56649
257.	Quad Cities	10/27	56649
258.	Zion	10/27	56649
259.	Haddam Neck	10/27	56650
260.	Monticello	10/27	56650
261.	Haddam Neck	10/31	56967

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
262.	Big Rock Point	10/31	56968
263.	Cooper	10/31	56958
264.	Pilgrim	11/3	57572
265.	Millstone	11/3	57575
266.	Fort St. Vrain	11/4	57777
267.	Haddam Neck	11/8	58228
268.	Palisades	11/8	58288
269.	Point Beach	11/10	58585
270.	Haddam Neck	11/11	58801
271.	Point Beach	11/11	58802
272.	Haddam Neck	11/14	58987
273.	Crystal River	11/14	58987
274.	Fort Calhoun	11/14	58988
275.	Calvert Cliffs	11/17	59434
276.	Pilgrim	11/17	59435
277.	Brunswick	11/21	59782
278.	Haddam Neck	11/21	59782
279.	Oconee	11/21	59782
280.	Oconee	11/21	59783
281.	Indian Point	11/22	59934
282.	Cooper	11/22	59935
283.	Indian Point	11/25	60234
284.	Oconee	11/25	60234
285.	Fort Calhoun	11/29	60810
286.	Browns Ferry	11/29	60811
287.	Oyster Creek	12/7	61903
288.	Oconee	12/8	62051
289.	Davis-Besse	12/9	62222
290.	Three Mile Island	12/9	62223
291.	Millstone	12/9	62223
292.	Millstone	12/9	62223

LICENSE AMENDMENTS FOR THE YEAR 1977 WHERE THE NRC MADE A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

	Plant Name	Date Published in Fed. Reg.	Page in 42 Fed. Reg.
293.	Point Beach	12/9	62224
294.	Brunswick	12/13	62570
295.	Haddam Neck	12/13	62571
296.	Indian Point	12/13	62572
297.	Oconee	12/13	62573
298.	Beaver Valley	12/13	62573
299.	Crystal River	12/13	62573
300.	San Onofre	12/13	62574
301.	Vermont Yankee	12/13	62575
302.	Surry	12/13	62575
303.	Yankee Rowe	12/13	62576
304.	Calvert Cliffs	12/15	63233
305.	Dresden	12/15	63233
306.	Oconee	12/15	63234
307.	Rancho Seco	12/15	63235
308.	Palisades	12/20	63825
309.	Turkey Point	12/20	63826
310.	Humbolt Bay	12/20	63827
311.	Peach Bottom	12/20	63828
312.	Three Mile Island	12/20	63829
313.	Prairie Island	12/23	64478
314.	Monticello	12/23	64478
315.	Cook	12/28	64748
316.	Rancho Seco	12/28	64749
317.	Arkansas	12/28	65333